



SAFETY DATA SHEET

According to the Hazard Communication Standard, 29 CFR 1910.1200

SDS # : 083867

VULSOL B 7705 S

Date of the previous version: not applicable

Revision Date: 2015-10-20

Version 1

1. IDENTIFICATION

Product identifier

Product name VULSOL B 7705 S

Other means of identification

Product Code(s) 083867

Number 8D6

Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Metalworking fluid.

Uses advised against Do not use for any purpose other than the one for which it is intended

Details of the supplier of the safety data sheet

Supplier Address TOTAL Specialties USA Inc
1201 Louisiana Street, Suite 1800
Houston, TX 77002
Phone: +1 800 323 3198

Contact Point Technical/ HSEQ

E-mail Address USRMLIN-info@total.com

Emergency telephone number

Company Phone Number

+1 (908) 862-9300

Emergency telephone

CHEMTREC: +1 800 424 9300 (24h)

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation - Category 2

Serious eye damage/eye irritation - Category 2

Skin sensitization - Category 1

Label elements

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**WARNING**

Causes skin irritation
 Causes serious eye irritation
 May cause an allergic skin reaction

Precautionary Statements - Prevention

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

Precautionary Statements - Response

Specific treatment (see Section 4 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
 If eye irritation persists: Get medical advice/attention

Skin

IF ON SKIN: Wash with plenty of soap and water
 Take off contaminated clothing and wash before reuse
 If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Disposal

Dispose of contents/ container to an approved waste disposal plant

Unknown Acute Toxicity

3.53289501% of the mixture consists of ingredient(s) of unknown toxicity

Hazards not otherwise classified (HNOC)

None known

Other information

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.

Environmental properties Should not be released into the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
2-amino-2-methylpropanol	124-68-5	5-10

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hexadec-1-ene	629-73-2	5-10
Nitric acid, reaction products with cyclododecanol and cyclododecanone, by-products from, high-boiling fraction	72162-23-3	1-5
Oxirane, methyl-, polymer with oxirane, monobutyl ether, phosphate	71662-44-7	1-5
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	58128-22-6	1-3
3-iodo-2-propynyl butylcarbamate	55406-53-6	<1

** The exact percentage (concentration) of composition has been withheld as a trade secret*

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Show this material safety data sheet to the doctor in attendance. If symptoms persist, call a physician. IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. Do not rub affected area. Check for and remove any contact lenses.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Allergic symptoms may develop within 12 hours after exposure.
Inhalation	Move to fresh air. If symptoms persist, call a physician. Immediate medical attention is not required. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Inhalation of high concentrations of vapor or aerosols may cause irritation of the upper respiratory tract.
Ingestion	Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician. If swallowed, do not induce vomiting - seek medical advice.
Protection of First-aiders	Use personal protective equipment.

Most important symptoms/effects, acute and delayed

Skin contact	May cause an allergic skin reaction. Causes skin irritation.
Eye contact	Causes serious eye irritation.
Inhalation	Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Itching. Skin irritation.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Foam. Carbon dioxide (CO₂). ABC powder.

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

Special Hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

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. Evacuate non-essential personnel.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

General Information Use personal protective equipment. Avoid contact with the skin and the eyes. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery.

Other information See Section 12 for additional information.

Environmental precautions

General Information Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Try to prevent the material from entering drains or water courses. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for cleaning up Dam up. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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7. HANDLING AND STORAGE**Precautions for safe handling****Advice on safe handling**

Wear personal protective equipment. Use only in area provided with appropriate exhaust ventilation. Prevent the formation of vapors, mists and aerosols. When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

Hygiene measures

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing. Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Wash hands with water as a precaution. Avoid breathing vapors, mist or gas. Avoid prolonged and repeated contact with the skin, especially with used or waste product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Keep out of reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Keep away from food, drink and animal feedingstuffs. Keep in a bonded area. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture.

Materials to Avoid

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure limits**

Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined).

Exposure controls**Engineering Measures**

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

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Individual protection measures, such as personal protective equipment

General Information	If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.
Eye/Face Protection	If splashes are likely to occur, wear: Safety glasses with side-shields.
Skin and body protection	Wear suitable protective clothing. Protective shoes or boots.
Hand Protection	Protective gloves. Impervious gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
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.
Hygiene measures	When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing. Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Wash hands with water as a precaution. Avoid breathing vapors, mist or gas. Avoid prolonged and repeated contact with the skin, especially with used or waste product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical and chemical properties**

Appearance	limpid
Color	clear amber
Physical State @20°C	liquid
Odor	Mild
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		Not applicable	
pH (as aqueous solution)	9.34	solution (5 %)	
Melting point/range		No information available	
Boiling point/boiling range		Not applicable	
Flash point		Not applicable	

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Evaporation rate	> 1	@ 25 °C
Flammability Limits in Air		No information available
upper	-	No information available
Lower	-	No information available
Vapor Pressure		No information available
Vapor density		No information available
Relative density	1.028	@ 15.6 °C
Density	1027 kg/m ³	@ 15 °C
Water solubility		soluble
Solubility in other solvents		No information available
logPow		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity, kinematic		No information available
Explosive properties	Not explosive	
Oxidizing Properties	Not applicable	
Possibility of hazardous reactions	Not applicable	
Other information		
Freezing Point		No information available

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	No information available.
<u>Chemical stability</u>	Stable under recommended storage conditions.
<u>Possibility of hazardous reactions</u>	None under normal processing.
<u>Conditions to Avoid</u>	Heat, flames and sparks. Take precautionary measures against static discharges. Heat (temperatures above flash point), sparks, ignition points, flames, static electricity. Strong oxidizing agents.
<u>Incompatible Materials</u>	Strong oxidizing agents.
<u>Hazardous Decomposition Products</u>	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Information on likely routes of exposure

Principle Routes of Exposure Inhalation, Ingestion, Eye contact, Skin contact.

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Numerical measures of toxicity

ATEmix (oral)	11964 mg/kg
ATEmix (dermal)	9155 mg/kg
Inhalation	
ATEmix (inhalation-dust/mist)	20.4 mg/l
ATEmix (inhalation-vapor)	309.2 mg/l

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-amino-2-methylpropanol 124-68-5	= 2900 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	
hexadec-1-ene 629-73-2	LD50 > 2000 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	LC50 (4h) > 5 mg/l (Rat)
Nitric acid, reaction products with cyclododecanol and cyclododecanone, by-products from, high-boiling fraction 72162-23-3	LD50 > = 5000 mg/kg (Rat)	LD50 >= 2000 mg/kg (Rabbit)	LC50 (4h) >= 4.3 mg/l (Rat)
Oxirane, methyl-, polymer with oxirane, monobutyl ether, phosphate 71662-44-7	LD50 > 5000 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	
12-Hydroxystearic acid, oligomers, reaction products with stearic acid 58128-22-6	LD50 > 2000 mg/kg (Rat)		
3-iodo-2-propenyl butylcarbamate 55406-53-6	LD50 1470 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	LD50 (4h) 1.5 mg/l (Rat - Particulate)

Information on toxicological effects

Symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Itching. Skin irritation.
Skin contact	May cause an allergic skin reaction. Causes skin irritation.
Eye contact	Causes serious eye irritation.
Inhalation	Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Irritating to eyes.
Sensitization	May cause an allergic skin reaction.
Carcinogenicity	This product is not classified carcinogenic.

Mutagenicity	This product is not classified as mutagenic.
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**Reproductive toxicity
Aspiration Hazard**

This product does not present any known or suspected reproductive hazards.
Not classified.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic organisms
Toxic to aquatic life with long lasting effects

Acute aquatic toxicity - Product Information

No experimental data available

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to microorganisms
2-amino-2-methylpropanol 124-68-5	EC50 (72h) = 520 mg/L Desmodesmus subspicatus	LC50 (96h) = 190 mg/L Lepomis macrochirus (static)	EC50 (48h) = 193 mg/L Daphnia magna	
hexadec-1-ene 629-73-2	EL50 (72h) > 1000 mg/l (Skeletonea costatum - static) EC50 (72h) 1 - 1.8 mg/l (Pseudokirchnerella subcapitata - static - OECD 201) EC50 (72h) > 0.00093 mg/l (Pseudokirchnerella subcapitata - static - OECD 201) EL50 (72h) > 1000 mg/l (Pseudokirchnerella subcapitata - static - OECD 201) EL50 (72h) > 5600 mg/l (Skeletonea costatum - static)	LC50 (96h) > 1.5 mg/l (Oncorhynchus mykiss - OECD 203)	EC50 (48h) 0.56 - 1 mg/l (Daphnia magna - OECD 202) EL50 (48h) < 1000 mg/l (Daphnia magna - OECD 202) EC50 (48h) 4.4 mg/l (Daphnia magna - static - OECD 202) EL50 (48h) > 1000 mg/l (Daphnia magna - OECD202) EC50 (48h) > 0.0028 mg/l (Daphnia magna - semi static - OECD 202)	
Nitric acid, reaction products with cyclododecanol and cyclododecanone, by-products from, high-boiling fraction 72162-23-3			EC50 (48h) >= 120 mg/l (Daphnia magna)	
12-Hydroxystearic acid, oligomers, reaction products with stearic acid 58128-22-6	EC50 (72h) 29671 mg/l (Skeletonea costatum)		LC50 (48h) 1614 mg/l (Acartia tonsa)	
3-iodo-2-propynyl butylcarbamate 55406-53-6	EC50 (72h) 0.022 mg/l Scenedesmus subspicatus	LC50 (96h) 0.067 mg/l Rainbow trout	EC50 (48h) 0.16 mg/l Daphnia magna	

Chronic aquatic toxicity - Product Information

No experimental data available

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Chronic aquatic toxicity - Component Information

No information available

Effects on terrestrial organisms No experimental data available .**Persistence and degradability****General Information** No information available.**Bioaccumulative potential****Product Information** No information available.**logPow** No information available**Component Information**

Chemical Name	log Pow
hexadec-1-ene 629-73-2	8.1
3-iodo-2-propynyl butylcarbamate 55406-53-6	2.81

Mobility**Soil** No information available**Other adverse effects****General Information** No information available**13. DISPOSAL CONSIDERATIONS****Waste treatment****Waste Disposal Methods** Dispose of in accordance with local regulations.**Contaminated packaging** Dispose of in accordance with local regulations.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

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<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO/IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated
<u>ADR/RID</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION**International Inventories**

All the substances contained in this product are listed or exempted from listing in the following inventories:
U.S.A. (TSCA)

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).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPS) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

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.

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U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois
2-amino-2-methylpropanol 124-68-5	X	X	X	
Triethanolamine 102-71-6	X	X	X	

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 1	Instability 0	Physical and chemical hazards -
HMIS	Health Hazard 2	Flammability 1	Physical Hazard 0	Personal protection X

NFPA (National Fire Protection Association)

HMIS (Hazardous Material Information System)

Hazards are split into categories each with a 0 to 4 rating, 0 meaning no hazard and 4 meaning high hazard

Revision Date: 2015-10-20

Revision Note: *** Indicates updated section

Abbreviations, acronyms**Legend**

Section 8

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH - National Institute for Occupational Safety and Health

TLV - Threshold Limit Values

PEL - Permissible Exposure Limits

IDLH - Immediately Dangerous to Life or Health concentrations

TWA - Time Weight Average

STEL - Short Term Exposure Limits

S* - Skin notation

TSCA - Toxic Substance Control Act

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

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End of the safety data sheet

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