

SAFETY DATA SHEETS

This SDS packet was issued with item:

072768281

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

072768182 072768232



MATERIAL SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Triad® TruTray™ Custom Tray Material
Product Number: 89902, 89904, 89905
MSDS Code Number: 93

Manufacturer: Dentsply Prosthetics
Address: 570 West College Ave.
York, PA 17405-0872
Information Telephone Number: 717-845-7511
Emergency Telephone Number: 800-424-9300 Chemtrec
Email: Prosthetics_MSDS@Dentsply.com

Product Use: Resin used in removable dental appliances.

Date of Last Revision: June 5, 2009

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview: CAUTION! May cause eye and skin irritation. May cause allergic skin reaction (sensitization).

EU Preparation Classification (1999/45/EC): Xi R43

SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

Ingredient	CAS No./EINECS No.	Percent	EC Substance Classification (67/548/EEC)
Non-hazardous Material	Proprietary	50-80	Not Applicable
Dichlorodimethyl silane-, reaction products with silica	68611-44-9 / 271-893-4	1-5	Not Applicable
Silazane Treated Silica	68909-20-6 / 272-697-1	1-5	Not Applicable
Methacryloxypropyl trimethoxysilane	2530-85-0 / 219-785-8	1-5	Xn R22, R43
Urethane Dimethacrylate	72869-86-4 / 276-957-5	<25	R52/53

See Section 16 for further information on EU Classification.

SECTION 4 FIRST AID MEASURES

Eye Contact: Immediately flush victim's eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get medical attention.

Skin Contact: Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation develops. Launder clothing before re-use. (Discard contaminated shoes).

Ingestion: If conscious, wash mouth out with water. Do not induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Get medical attention.

Inhalation: If irritation develops, remove to fresh air. Get medical attention if symptoms persist.

SECTION 5 FIRE FIGHTING PROCEDURES

Extinguishing Media: Water fog, foam, carbon dioxide, water spray or dry chemical.

Firefighting Procedures: Firefighters should wear full emergency equipment and an approved positive pressure self-contained breathing apparatus. Cool exposed intact containers with water spray.

Unusual Fire/Explosion Hazards: High temperatures and sunlight may cause a polymerizing reaction to occur. Decomposition may release acrid smoke or fumes.

Known or Anticipated Hazardous Products of Combustion: Acrid fumes, carbon and nitrogen oxides.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Accidental Release Measures Exposure to sunlight or artificial light will cause the paste to polymerize. Spread the paste to maximize the surface area. Once the material is hard, pick up and place into a container for disposal. Spill and release reporting requirements vary. Consult local authorities regarding requirements.

Personal Precautions: Avoid contact with skin, eyes or clothing.

Environmental Precautions: Prevent entry into sewers and waterways.

SECTION 7 HANDLING AND STORAGE

Handling: Avoid contact with the eyes, skin and clothing. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Empty containers retain product residues can be hazardous. Follow all MSDS precautions when handling empty containers.

Storage: Store in a tightly closed container in a cool, well ventilated location away from incompatible materials. Do not store near high temperatures or ignition sources. Prevent contact with moisture. Refrigeration prolongs shelf life. Store away from food or beverages.

SECTION 8 EXPOSURE CONTROL/PERSONAL PROTECTION

Occupational Exposure Limits:

Non-hazardous Material	None Established
Dichlorodimethyl silane, reaction products with silica (as PNOC)	15 mg/m ³ (total dust) TWA OSHA PEL 5 mg/m ³ (respirable fraction) TWA OSHA PEL
Silazane Treated Silica	0.8 mg/m ³ TWA (manufacturer recommended)
Methacryloxypropyl trimethoxysilane	None Established
Urethane Dimethacrylate	None Established

Engineering Controls: Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits or when grinding polymerized (cured) materials.

Personal Protective Equipment:

Eye Protection: Chemical safety glasses or chemical splash goggles.

Skin Protection: Wear impervious gloves such as rubber to prevent skin contact.

Respiratory Protection: If the product is heated and ventilation is inadequate, wear an approved respiratory appropriate for the exposure conditions.

Other Protective Clothing or Equipment: Impervious clothing as needed to prevent contact. A safety shower and eye wash should be available in the immediate work area.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Faint yellow, translucent paste.

Boiling Point: N/A (polymerizes)

Freezing Point: <-40°C(<-40°F)

Solubility in Water: Negligible

Vapor Pressure (mmHg): <1

Evaporation Rate: Not available

% Volatile by Volume: Negligible

Flammable Limits in Air:

LEL: N/A

UEL: N/A

Melting Point: N/A

Specific Gravity: 1.5

pH: Not determined

Vapor Density: >1

Viscosity: Not determined

Flashpoint: Not applicable

Autoignition Temperature: Not applicable

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Polymerizes to form a hard plastic in 2 hours at 100°C (212°F) with low exotherm.

Incompatibility with Other Materials: Oxidizing agents, reducing agents, inert gases, oxygen scavengers, free radical initiators. Avoid excessive heat, flames, ignition sources and direct sunlight.

Hazardous Decomposition Products: Acrid fumes, carbon and nitrogen oxides.

SECTION 11 TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: May cause irritation, redness and tearing.

Skin: May cause irritation, redness, and swelling. May cause allergic skin reaction (sensitization).

Ingestion: None expected under normal use conditions.

Inhalation: None expected under normal use.

Chronic Health Effects: None expected under normal use.

Carcinogenicity: None of the components are listed as possible carcinogens by NTP, IARC, ACGIH, the EU Dangerous Substances Directive, or OSHA.

Medical Conditions Aggravated by Exposure: Individuals with pre-existing skin disorders may be at increased risk from exposure.

Acute Toxicity Data:

Non-hazardous materials No data available

Silazane Treated Silica Oral Rat LD50: >5000 mg/kg

Methacryloxypropyl trimethoxysilane Oral Rat LD50: >2000 mg/kg; Skin rat LD50: >2000 mg/kg

Dichlorodimethyl silane-, reaction products with silica Oral Rat LD50: >5000 mg/kg

Urethane Dimethacrylate Oral Rat LD50: >2000 mg/kg

SECTION 12 ECOLOGICAL INFORMATION

Non-hazardous materials No data available

Silazane Treated Silica No data available

Methacryloxypropyl trimethoxysilane No data available

Dichlorodimethyl silane-, reaction products with silica No data available

Urethane Dimethacrylate

96h/LC50 zebra fish: 10.1 mg/l, not readily biodegradable

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with national and local regulations. Exposure to sunlight or artificial light will cause the material to polymerize into a hard plastic.

SECTION 14 TRANSPORT INFORMATION

DOT Shipping Name: Not Regulated

DOT Hazard Class: N/A

UN Number: N/A

DOT Labels Required (49CFR172.101): N/A

IATA Shipping Name: Not Regulated

IATA Hazard Class: N/A

UN Number: N/A

IATA Hazard Labels Required: N/A

IMDG Shipping Name: Not Regulated

IMDG Class: N/A

UN Number: N/A

IMDG Label: N/A

SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

CERCLA: Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Acute Health

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: This product is a medical device and not subject to chemical notification requirements.

U.S. STATE REGULATIONS

California Proposition 65: This product contains the following substances known to the State of California to cause cancer: None

INTERNATIONAL REGULATIONS:

Canadian Environmental Protection Act: This product is a medical device and not subject to chemical notification requirements.

Canadian WHMIS Classification: This product is a medical device and not subject to labeling under WHMIS.

European Community Labeling:



Irritant

R43 May cause sensitization by skin contact.
S24/25 Avoid contact with skin and eyes.
S36/37 Wear suitable protective clothing and gloves.

European Inventory of New and Existing Chemicals Substances (EINECS): This product is a medical device and not subject to chemical notification requirements.

Australian Inventory of Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

China Inventory of Existing Chemicals and Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

Japanese Existing and New Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

Korean Existing Chemicals List: This product is a medical device and not subject to chemical notification requirements.

Philippine Inventory of Chemicals and Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

SECTION 16 OTHER INFORMATION

HMIS Hazard Rating:

Health – 1 Flammability – 1 Physical Hazard – 1

EU Classes and Risk Phrases for Reference (See Sections 2 and 3):

Xi Irritant

R36/37/38 Irritating to eyes, respiratory system and skin.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Revision Summary:

Added e-mail address to Section 1. Switched Sections 2 and 3. Updated exposure limits. Updated Canadian WHMIS classification.

Revision Date: 06/05/2009

Supersedes: 07/14/2006

DENTSPLY International

DENTSPLY PROSTHETICS

Safety Data Sheet

Safety Data Sheet (in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010)

Date Issued: 25 June 1997
Document Number: 093
Date Revised: 16 August 2012
Revision Number: 6

1. PRODUCT IDENTIFICATION


Trade Name (as labeled):	Triad® TruTray Custom Tray Material
Product Identifier (Part/Item Number):	89902, 89904, 89905
U.N. Number:	None
U.N. Dangerous Goods Classification:	None
Recommended Use:	Resin used in removable dental appliances
Restrictions on Use:	For Professional Use Only
Manufacturer/Supplier Name:	Dentsply Prosthetics
Manufacturer/Supplier Address:	570 West College Ave. York, PA 17405-0872
Manufacturer/Supplier Telephone Number:	717-845-7511 (Product Information)
Emergency Contact Telephone Number:	800-424-9300 Chemtrec
Email address:	Prosthetics_MSDS@Dentsply.com

2. HAZARD(s) IDENTIFICATION

EU Classification (1999/45/EC): Irritant (Xi), R43, R52/53

Refer to Section 16 for the full text of the EU Classifications and R Phrases.

Labeling in accordance with 1999/45/EC

 Irritant	Contains Methacryloxypropyl trimethoxysilane. R43 May cause sensitization by skin contact. S24/25 Avoid contact with skin and eyes. S36/37 Wear suitable protective clothing and gloves.
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US Hazard Classification: Hazardous (Sensitizer)

3. COMPOSITION AND INFORMATION ON INGREDIENTS





Hazardous Components	C.A.S. #	EINECS #	Substance Classification	WT %
Non-hazardous Material	Proprietary	Proprietary	Not Applicable	50-80
Urethane Dimethacrylate	72869-86-4	276-957-5	R52/53	< 25
Dichlorodimethyl silane-, reaction products with silica	68611-44-9	271-893-4	Not Applicable	1-5
Silazane Treated Silica	68909-20-6	272-697-1	Not Applicable	1-5
Methacryloxypropyl trimethoxysilane	2530-85-0	219-785-8	Xn R22, R43	1-5

Refer to Section 16 for the full text of the EU Classifications and R Phrases.

4. FIRST-AID MEASURES

Routes of Exposure	First Aid Instructions
Eye	Immediately flush victim's eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation develops. Launder clothing before re-use. (Discard contaminated shoes).
Inhalation	If irritation develops, remove to fresh air. Get medical attention if symptoms persist.
Ingestion	If conscious, wash mouth out with water. Do not induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Get medical attention.
Most important symptoms of exposure	May cause eye and skin irritation. May cause allergic skin reaction (sensitization).
Note to Physicians (Treatment, Testing, and Monitoring): Treat symptomatically.	

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Water fog, foam, carbon dioxide, water spray or dry chemical.		
Fire Fighting Procedures:	Cool exposed intact containers with water spray.		
Specific Hazards Arising from the Chemical:	High temperatures and sunlight may cause a polymerizing reaction to occur. Decomposition may release acrid smoke and fumes; carbon and nitrogen oxides.		
Precautions for Fire Fighters:	Firefighters should wear full emergency equipment and approved positive pressure self-contained breathing apparatus.		
Recommended Protective Equipment for Fire Fighters:			
EYES/FACE	HANDS	RESPIRATORY	THERMAL
			



6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, PPE and Emergency Procedures: Avoid contact with skin, eyes or clothing.

Environmental Precautions: Spill and release reporting requirements vary. Consult local authorities regarding requirements. Prevent entry into sewers and waterways

Methods and Materials for Containment and Clean-up: Exposure to sunlight or artificial light will cause the paste to polymerize. Spread the paste to maximize the surface area. Once the material is hard, pick up and place into a container for disposal.

Recommended Personal Protective Equipment for Containment and Clean-up:

EYES/FACE	HANDS	RESPIRATORY	SKIN
			

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with the eyes, skin and clothing. Wear protective clothing and equipment as described in Section 8. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.



Empty containers retain product residues can be hazardous. Follow all MSDS precautions when handling empty containers.

Conditions for Safe Storage: Store in a tightly closed container in a cool, well ventilated location away from incompatible materials. Do not store near high temperatures or ignition sources. Prevent contact with moisture. Refrigeration prolongs shelf life. Store away from food or beverages.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

Non-hazardous Material	United States	None Established
	Germany	None Established
	United Kingdom	None Established
	European Union	None Established

Urethane Dimethacrylate	United States	None Established	
	Germany	None Established	
	United Kingdom	None Established	
	European Union	None Established	
Dichlorodimethyl Silane-, reaction products with silica (as PNOC)	United States	5 mg/m ³ (Respirable Fraction) TWA OSHA PEL 15 mg/m ³ (Total Dust) TWA OSHA PEL	
	Germany	None Established	
	United Kingdom	None Established	
	European Union	None Established	
Silazane Treated Silica	United States	0.8 mg/m ³ TWA (manufacturer recommended)	
	Germany	0.8 mg/m ³ TWA (manufacturer recommended)	
	United Kingdom	0.8 mg/m ³ TWA (manufacturer recommended)	
	European Union	0.8 mg/m ³ TWA (manufacturer recommended)	
Methacryloxypropyl trimethoxysilane	United States	None Established	
	Germany	None Established	
	United Kingdom	None Established	
	European Union	None Established	
Biological Exposure Limits: None Established			
Appropriate Engineering Controls: Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits or when grinding polymerized (cured) materials.			
Individual Protection Measures (PPE) Specific Eye/face Protection: Chemical safety glasses or chemical splash goggles recommended. Specific Skin Protection: Wear impervious gloves such as rubber to prevent skin contact. Recommended glove: Rubber. Consult glove supplier for thickness and breakthrough times. Specific Respiratory Protection: None under normal use conditions. If the product is heated and ventilation is inadequate, wear an approved respirator appropriate for the exposure conditions. Specific Thermal Hazards: None required.			
Recommended Personal Protective Equipment			
EYES/FACE	HANDS	RESPIRATORY	SKIN
			

Environmental Exposure Controls: Do not allow spills to enter sewers or waterways.

General Hygiene Considerations and Work Practices: Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

Protective Measures During Repair and Maintenance of Contaminated Equipment: Wear appropriate protective clothing and equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Faint yellow, translucent paste in the uncured state.	Explosive limits:	Not applicable
Odor:	Characteristic odor.	Vapor pressure (mmHg):	< 1
Odor threshold:	Not determined	Vapor density:	>1
pH:	Not determined	Relative density:	1.5
Melting/freezing point:	<-40°C(<-40°F)	Solubility:	Negligible
Initial boiling point and range:	Not applicable (polymerizes)	Partition coefficient: n-octanol/water:	Not available
Flash point:	Not applicable	Auto-ignition temperature:	Not applicable
Evaporation rate:	Not available	Decomposition temperature:	Not determined
Flammability:	Not Flammable	Viscosity:	Not determined
Explosive Properties:	None	Oxidizing Properties:	None
% Volatile by Volume:	Not determined		

10. STABILITY AND REACTIVITY

Reactivity: Polymerization can occur.

Chemical Stability: Unstable if heated. Polymerizes to form a hard plastic in 2 hours at 100°C(212°F) with low exotherm.

Possibility of Hazardous Reactions: Polymerization can occur if heated above 100°C(212°F)

Conditions to Avoid: Avoid heating greater than 100°C(212°F)

Incompatible materials: Oxidizing agents, reducing agents, inert gases, oxygen scavengers, free radical initiators. Avoid excessive heat, flames, ignition sources and direct sunlight.

Hazardous Decomposition Products: Thermal decomposition may release acrid smoke and fumes; carbon and nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: May cause irritation, redness and tearing.

Skin: May cause irritation, redness, rash and swelling. May cause allergic skin reaction (sensitization).

Ingestion: None expected under normal use conditions.

Inhalation: None expected under normal use.

Chronic Health Effects: None expected under normal use.

Carcinogenicity: None of the components at 0.1% or greater are listed as possible carcinogens by NTP, IARC, ACGIH, the EU Dangerous Substances Directive, or OSHA.

Mutagenicity: No data available. This product is not expected to cause mutagenic activity.

Medical Conditions Aggravated by Exposure: Individuals with pre-existing skin and respiratory disorders may be at increased risk from exposure.

Acute Toxicity Data:

Non-hazardous materials: No data available

Silazane Treated Silica: Oral Rat LD50: >5000 mg/kg

Methacryloxypropyl trimethoxysilane: Oral Rat LD50: >2000 mg/kg; Skin rat LD50: >2000 mg/kg

Urethane Dimethacrylate: Oral Rat LD50: >2000 mg/kg

Dichlorodimethyl Silane-, reaction products with silica: Oral rat LD50: >5000 mg/kg, Inhalation rat LC50: >0.477 mg/l/4 hours

Reproductive Toxicity Data: No data available. This product is not expected to cause adverse reproductive effects.

Specific Target Organ Toxicity (STOT):

Single Exposure: No data available.

Repeated Exposure: No data available.

12. ECOLOGICAL INFORMATION

Toxicity:

Non-hazardous materials: No data available

Silazane Treated Silica:

Methacryloxypropyl trimethoxysilane:

Urethane Dimethacrylate: 96h/LC50 zebra fish: 10.1 mg/l,

Dichlorodimethyl Silane-, reaction products with silica: 96 hr LC50 Zebrafish >10,000 mg/L,
48 hr EC50 dapnia magna >10,000 mg/

Persistence and Degradability: Urethane Dimethacrylate is not readily biodegradable
Bio-accumulative Potential: No data is currently available
Mobility in Soil: No data is currently available
Other Adverse Effects: Some components are toxic to aquatic organisms, and may cause long-term adverse effects in the aquatic environment.
Results of PBT/vPvB Assessment: Not applicable.

13. DISPOSAL CONSIDERATIONS

Regulations: Dispose in accordance with all national and local regulations.
Properties (Physical/Chemical) Affecting Disposal: Exposure to sunlight or artificial light will cause the material to polymerize into a hard plastic. Empty containers retain product residues can be hazardous. Follow all MSDS precautions when handling empty containers.
Waste Treatment Recommendations: Dispose in accordance with national and local regulations.

14. TRANSPORT INFORMATION

UN Number:	ADR/RID: None	IMDG: None	IATA: None	DOT: None
UN proper shipping name:	ADR/RID: Not Regulated IMDG: Not Regulated IATA: Not Regulated DOT: Not Regulated			
Transport hazard class(es):	ADR/RID: None	IMDG: None	IATA: None	DOT: None
Packaging group:	ADR/RID: None	IMDG: None	IATA: None	DOT: None
Environmental hazards:	ADR/RID: No	IMDG Marine pollutant: No	IATA: No	DOT: No
Special precautions for user: Not applicable				

15. REGULATORY INFORMATION

U.S. Federal Regulations

US OSHA Hazard Classification: Sensitizer

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Toxic Substances Control Act (TSCA): This product is a medical device and not subject to chemical notification

Clean Water Act (CWA): This material is not regulated under the Clean Water Act

Clean Air Act (CAA): This material is not regulated under the Clean Air Act

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Immediate Hazard:	Yes	Pressure Hazard:	No
Delayed Hazard:	No	Reactivity Hazard:	No
Fire Hazard:	No		

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372):

Components	C.A.S. #	WT %
None		

State Regulations

California: This product contains the following substances known to the state of California to cause cancer and/or reproductive toxicity: None

Components	C.A.S. #	WT %
None		

International Regulations

Canadian Workplace Hazardous Materials Information System (WHMIS): Class D Division 2B (Toxic material causing other toxic effects).

European Inventory of Existing Chemicals (EINECS): This product is a medical device and not subject to chemical notification requirements.

EU REACH: All components requiring registration have been pre-registered.

Australian Inventory of Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

China Inventory of Existing Chemicals and Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

Japanese Existing and New Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

Korean Existing Chemicals List: This product is a medical device and not subject to chemical notification requirements.

Philippine Inventory of Chemicals and Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

16. OTHER INFORMATION

HMIS Hazard Rating:

Health – 1 Flammability – 1 Physical Hazard– 1

Full text of Classification abbreviations used in Section 2 and 3:

Xi Irritant

Xn Harmful

N Dangerous for the environment.

R22 Harmful if swallowed

R43 May cause sensitization by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Supersedes: 05 June 2009

Revision Summary: Change in format. Comprehensive review. Changes to all sections.

Data Sources: US NLM ChemID Plus and HSDB, Substance SDS for components, IUCLID Dataset EU Chemical Bureau, ESIS, Country websites for occupational exposure limits.