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 SECTION 1. PRODUCT AND COMPANY IDENTIFICATION
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Trade name	:	JM TPO Membrane Primer				
Manufacturer or supplier's deta	ails					
Company Address	:	Johns Manville P.O. Box 5108 Denver, CO USA 80217-5108				
Telephone Emergency telephone number	:	+1-303-978-2000 24-Hour Number: +1-800-424-9300 (CHEMTREC)				
Company Address	:	Johns Manville Canada Inc. 5301 42 Avenue Innisfail. AB Canada T4G 1A2				
Telephone Emergency telephone number	:	+1-303-978-2000 24-Hour Number: +1-800-424-9300 (CHEMTREC)				
Recommended use of the chemical and restrictions on use						
Recommended use Restrictions on use Prepared by	:	Primers For professional users only. productsafety@jm.com				

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the Hazardous Products Regulations

Flammable liquids	:	Category 2
Skin irritation	:	Category 2
Reproductive toxicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3 (Central nervous system)
Specific target organ toxicity - repeated exposure	:	Category 2 (Auditory system)
Aspiration hazard	:	Category 1
GHS label elements Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H225 Highly flammable liquid and vapor. H304 May be fatal if swallowed and enters

airways.



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	H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H361 Suspected of damaging fertility or the unborn child. H373 May cause damage to organs (Auditory system) through prolonged or repeated exposure.					
Precautionary statements	Prevention:					
	 P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P260 Do not breathe mist or vapours. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection face protection. 					
	 Response: P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P331 Do NOT induce vomiting. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. 					
	Storage: P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.					
	Disposal: P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.					

Other hazards

None known.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)			
solvent naphtha (petroleum), light aliph.	64742-89-8	>= 30 - < 60			
Benzene, methyl-; Toluene	108-88-3	>= 10 - < 30			
Actual concentration or concentration range is withheld as a trade accret					

Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	Handle in accordance with good industrial hygiene and safety practice.Show this safety data sheet to the doctor in attendance.Move out of dangerous area.Do not leave the victim unattended.Symptoms of poisoning may appear several hours later.
If inhaled	:	Remove person to fresh air. If signs/symptoms continue, get medical attention.
In case of skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation develops or persists.
In case of eye contact	:	Rinse immediately with plenty of water, also under the eyelids, for at least 5 minutes. If easy to do, remove contact lens, if worn. Protect unharmed eye. If eve irritation persists, consult a specialist.
If swallowed	:	DO NOT induce vomiting unless directed to do so by a physician or poison control center. Gently wipe or rinse the inside of the mouth with water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician or Poison Control Centre immediately.
Most important symptoms and effects, both acute and delayed	:	May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.
Protection of first-aiders	:	If potential for exposure exists refer to Section 8 for specific personal protective equipment.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Carbon dioxide (CO2)
		Foam
		Dry powder
		Water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during	:	Vapours may form explosive mixtures with air.



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firefighting Hazardous combustion products	: carbon oxides phenol Formaldehyde					
Further information	: Standard procedure for chemical Collect contaminated fire extingu must not be discharged into drain Fire residues and contaminated be disposed of in accordance with For safety reasons in case of fire separately in closed containment Use a water spray to cool fully cl	I fires. uishing water separately. This ns. fire extinguishing water must th local regulations. e, cans should be stored ts. osed containers.				
Special protective equipment for firefighters	: Wear self-contained breathing an necessary.	pparatus for firefighting if				

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : protective equipment and emergency procedures	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions :	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for : containment and cleaning up	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). Non-sparking tools should be used. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition. Do not pressurise, cut, weld, braze, solder, drill, or grind on containers.
Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms



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	Open drum carefully as content m Dispose of rinse water in accorda regulations. Persons susceptible to skin sensi allergies, chronic or recurrent resp be employed in any process in wh used. For personal protection see section	ay be under pressure. nce with local and national tisation problems or asthma, piratory disease should not nich this mixture is being				
Conditions for safe storage	 No smoking. Keep containers tightly closed in a ventilated place. Containers which are opened must kept upright to prevent leakage. Observe label precautions. Electrical installations / working m the technological safety standards 	a dry, cool and well- st be carefully resealed and naterials must comply with				
Materials to avoid	: Keep away from oxidizing agents materials.	and strongly acid or alkaline				
Recommended storage temperature	: 40 - 90 °F / 4 - 32 °C					
Further information on storage stability	 Keep containers tightly closed in a ventilated place. Do not freeze. 	a dry, cool and well-				

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
solvent naphtha (petroleum), light aliph.	64742-89-8	TWA	500 ppm 2,000 mg/m3	OSHA
Benzene, methyl-; Toluene	108-88-3	TWA	50 ppm 188 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m3	NIOSH REL
		ST	150 ppm 560 mg/m3	NIOSH REL
		TWA	200 ppm	OSHA
		CEIL	300 ppm	OSHA
		Peak	500 ppm (10 minutes)	OSHA

Components with workplace control parameters

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio	Basis
					n	
Benzene, methyl-; Toluene	108-88-3	Toluene	In blood	Prior to last shift of workwee	0.02 mg/l	ACGIH BEI



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			Toluene	Urine	k End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI
			o-Cresol	Urine	End of shift (As soon as possible after exposure ceases)	0.3 mg/g creatinine	ACGIH BEI
Engineering measures	:	Use Pro	e a local and/o vide exhaust v	r general ve ventilation cl	ntilation sys	stem. level.	
Personal protective equi	ipment						
		mai con unk Foll use by a haz sup rele circ ade	ntain vapor ex centrations ar nown, approp ow OSHA res NIOSH/MSH air purifying re ardous chemi plied respirato ase, exposure umstance who quate protecti	cposures bel e above reco riate respirat pirator regul A approved spirators aga cal is limited or if there is a e levels are u ere air purify on.	ow recomm ommended tory protect ations (29 C respirators. ainst expos . Use a pos any potentia unknown, of ing respirat	nended limits. limits or are ion should be CFR 1910.134 Protection pro- ure to any itive pressure al for uncontro r any other ors may not p	Where worn.) and ovided air illed rovide
Hand protection Material	:	Pro	tective gloves				
Remarks	:	Tak con spe con	e note of the i cerning perme cial workplace tact).	nformation g eability and b e conditions	given by the preak throug (mechanica	producer gh times, and I strain, durati	of ion of
Eye protection	:	We We pro	ar safety glass ar face-shield blems	ses with side and protecti	shields or ve suit for a	goggles. Ibnormal proc	essing
Skin and body protection	:	We pan Rer Cho con	ar protective of ts. nove and was pose body pro centration and specific work	clothing, such h contamina tection in rel d amount of c	n as long-sl ited clothing ation to its t dangerous	eeved shirts a g before re-us type, to the substances, a	and e. and to
Hygiene measures	:	Har pra Wh Wa Wri	adle in accord ctice. en using do n sh hands befo tten instruction ce.	ance with go ot eat, drink ore breaks ar ns for handlin	od industria or smoke. nd at the en ng must be	al hygiene and d of workday. available at th	l safety ne work

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES



JM TPO Membrane Primer Version 2.0 Revision Date 08/08/2024 Print Date 08/08/2024 Appearance : liquid Colour colorless, light yellow : Odour solvent-like : **Odour Threshold** : No data available : No data available pН Melting point/freezing point : No data available Initial boiling point and boiling : 85 °C range : 7.8 °C Flash point Evaporation rate : No data available Flammability (solid, gas) : Not applicable Upper explosion limit : 7.0 %(V) Lower explosion limit : 1.2 %(V) Vapour pressure : 29 hPa (20 °C) Relative vapour density : No data available Relative density : No data available : 0.8 g/cm³ (20 °C) Density Solubility(ies) Water solubility : immiscible Solubility in other solvents : No data available Partition coefficient: n-: No data available octanol/water Auto-ignition temperature : No data available Thermal decomposition : No data available Viscosity Viscosity, dynamic : No data available Viscosity, kinematic : < 22.5 mm2/s (40 °C)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. Vapours may form explosive mixture with air. Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.
Conditions to avoid	:	Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.
Incompatible materials	:	Strong oxidizing agents
		Strong acids and strong bases
		Reducing agents
		halogenated compounds
Hazardous decomposition	:	Hazardous decomposition products formed under fire



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products	conditions.			
SECTION 11. TOXICOLOGICAL II	NFORMATION			
Acute toxicity				
Product:				
Acute inhalation toxicity	: Acute toxicity estimate : 91.83 mg Exposure time: 4 h Test atmosphere: vapour Method: Calculation method	Л		
Acute dermal toxicity	: Acute toxicity estimate : 4,523 mg Method: Calculation method	/kg		
Components:				
solvent naphtha (petroleum)	, light aliph.: . I D50 (Rat. male and female): > 5	000 ma/ka		
	Method: OECD Test Guideline 40 Remarks: Information given is bas similar substances.	1 sed on data obtained from		
Acute inhalation toxicity	 LC50 (Rat, male and female): > 5. Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 40 Assessment: The substance or minhalation toxicity Remarks: No mortality was observed information given is based on data substances. 	.61 mg/l 3 ixture has no acute ved. a obtained from similar		
Acute dermal toxicity	 LD50 (Rabbit, male and female): Method: OECD Test Guideline 40 Remarks: Information given is bas similar substances. 	> 2,000 mg/kg 2 sed on data obtained from		
Benzene, methyl-; Toluene: Acute oral toxicity	: LD50 Oral (Rat, male): 5,580 mg/l Method: Regulation (EC) No. 440/ GLP: no	kg /2008, Annex, B.1 bis		
Acute inhalation toxicity	: LC50 (Rat): > 20 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 40 GLP: no	3		
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg GLP: no			
Skin corrosion/irritation				

<u>Components:</u> solvent naphtha (petroleum), light aliph.:



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Species: Rabbit Method: OECD Test Guideline 404 Result: Skin irritation Remarks: Information taken from reference works and the literature.

Skin corrosion/irritation

Causes skin irritation. **Benzene, methyl-; Toluene:** Species: Rabbit Method: Regulation (EC) No. 440/2008, Annex, B.4 Result: Irritating to skin.

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Components:

Benzene, methyl-; Toluene:

Species: Rabbit Result: No eye irritation Method: OECD Test Guideline 405 GLP: yes

Respiratory or skin sensitisation

Skin sensitisation: Based on available data, the classification criteria are not met.

Components:

Benzene, methyl-; Toluene:

Species: Guinea pig Method: Regulation (EC) No. 440/2008, Annex, B.6 Result: Not a skin sensitizer. GLP: yes

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA (29 CFR 1910 Subpart Z, Toxic and Hazardous Substances).
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Components:

Benzene, methyl-; Toluene:		
Reproductive toxicity -	:	Some evidence of adverse effects on sexual function and
Assessment		fertility, and/or on development, based on animal experiments.



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STOT - single exposure

Components:

solvent naphtha (petroleum), light aliph.: Exposure routes: Inhalation Target Organs: Central nervous system Assessment: May cause drowsiness or dizziness.

STOT - single exposure

May cause drowsiness or dizziness. **Benzene, methyl-; Toluene:** Exposure routes: Inhalation Target Organs: Central nervous system Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

May cause damage to organs (Auditory system) through prolonged or repeated exposure.

Components:

Benzene, methyl-; Toluene: Target Organs: Auditory system Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Components:

solvent naphtha (petroleum), light aliph.: May be fatal if swallowed and enters airways. Benzene, methyl-; Toluene: May be fatal if swallowed and enters airways.

Experience with human exposure

Components:

Benzene, methyl-; Toluene: Skin contact:

Remarks:

Prolonged skin contact may defat the skin and produce dermatitis.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

solvent naphtha (petroleum), light aliph.:

Toxicity to fish	:	LL50 (Pimephales promelas (fathead minnow)): 8.2 mg/l End point: mortality Exposure time: 96 h Test Type: semi-static test
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): 4.5 mg/l End point: Immobilization



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		Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202	
Toxicity to algae/aquatic plants	:	EL50 (Pseudokirchneriella subcapitata Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201	a (algae)): 3.1 mg/l
		NOELR (Pseudokirchneriella subcapit Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201	ata (algae)): 0.5 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOELR (Daphnia magna (Water flea)) Exposure time: 21 d Test Type: semi-static test Method: OECD Test Guideline 211	: 2.6 mg/l
Benzene, methyl-; Toluene:			
Toxicity to fish	:	LC50 (Oncorhynchus kisutch (coho sa End point: mortality Exposure time: 96 h	ılmon)): 5.5 mg/l
Toxicity to daphnia and other aquatic invertebrates	:	LC50: 3.78 mg/l End point: mortality Exposure time: 48 h	
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus kisutch (coho s Exposure time: 40 d	almon)): 1.39 mg/l
Toxicity to daphnia and other aquatic invertebrates	:	NOEC (Ceriodaphnia dubia): 0.74 mg/ Exposure time: 7 d	(1
Toxicity to microorganisms	:	EC50: 84 mg/l Exposure time: 24 h	
Persistence and degradability	у		
Components:			
Benzene, methyl-; Toluene:			
Biodegradability	:	Result: Readily biodegradable. Remarks: Readily biodegradable, accordence of the contract of t	ording to appropriate
Bioaccumulative potential			
Components:			
Benzene, methyl-; Toluene:			
Partition coefficient: n- octanol/water	:	Pow: 2.73 (68 °F / 20 °C) pH: 7	



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Mobility in soil					
No data available					
Other adverse effects					
Product:					
Ozone-Depletion Potential :	Regulation: 40 CFR Protection of Protection of Stratospheric Ozone Substances Remarks: This product neither cor manufactured with a Class I or Cla U.S. Clean Air Act Section 602 (40 B).	Environment; Part 82 - CAA Section 602 Class I ntains, nor was ass II ODS as defined by the 0 CFR 82, Subpt. A, App.A +			

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods		
Waste from residues	:	Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.
		The product should not be allowed to enter drains, water courses or the soil
Contaminated packaging	:	Empty remaining contents.
		Dispose of as unused product.
		Do not re-use empty containers.
		Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

Land transport USDOT (Special Provision 149): UN1133, Adhesives, 3, II TDG: UN1133, Adhesives, 3, II

LIMITED QUANTITY if shipped in inner packagings not over 5.0 L (1.3 gallons) net capacity each, packed in a strong outer packaging.

Sea transport IMDG: UN1133, Adhesives, 3, II

Air transport IATA/ICAO: UN1133, Adhesives, 3, II

SECTION 15. REGULATORY INFORMATION

TSCA list

TSCA - 5(a) Significant New Use Rule List of Chemicals	:	No substances are subject to a Significant New Use Rule.
U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D)	:	No substances are subject to TSCA 12(b) export notification requirements.



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EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
Benzene, methyl-; Toluene	108-88-3	1000	3333

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ	
		(lbs)	(lbs)	
formaldehyde	50-00-0	100	> 50000	

SARA 311/312 Hazards	: Flammable (gases, aerosols, liquids, or solids)
	Reproductive toxicity
	Specific target organ toxicity (single or repeated exposure)
	Aspiration hazard
	Skin corrosion or irritation

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

Benzene, methyl-;	108-88-3	10 - 30 %
Toluene		

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Benzene, methyl-; 108-88-3 10 - 30 % Toluene

California Prop. 65

WARNING: This product can expose you to chemicals including formaldehyde, which is/are known to the State of California to cause cancer, and Benzene, methyl-; Toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

TSCA	:	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.
DSL	:	On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Further information Revision Date	:	08/08/2024			
Full text of other abbreviations					
ACGIH :		USA. ACGIH Threshold Limit Values (TLV)			



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ACGIH BEI	:	ACGIH - Biological Exposure Indices	(BEI)	
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)		
CA BC OEL	:	Canada. British Columbia OEL		
NIOSH REL	:	USA. NIOSH Recommended Exposu	e Limits	
OSHA		USA. Occupational Exposure Limits (OSHA) - Table Z-1	
		Limits for Air Contaminants		
OSHA	:	USA. Occupational Exposure Limits (OSHA) - Table Z-2	
ACGIH / TWA	:	8-hour, time-weighted average		
CA AB OEL / TWA	:	8-hour Occupational exposure limit		
CA BC OEL / TWA	:	8-hour time-weighted average		
NIOSH REL / TWA	:	Time-weighted average concentration workday during a 40-hour workweek	for up to a 10-hour	
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that at any time during a workday	should not be exceeded	
OSHA / TWA	:	8-hour time weighted average		
OSHA / TWA	:	8-hour time weighted average		
OSHA / CEIL	:	Acceptable ceiling concentration		
OSHA / Peak	:	Acceptable maximum peak above the concentration for an 8-hr shift	acceptable ceiling	

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL -Domestic Substances List (Canada): ECx - Concentration associated with x% response: EHS -Extremely Hazardous Substance: ELx - Loading rate associated with x% response: EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA -National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD -Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS -Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship: RCRA - Resource Conservation and Recovery Act: REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Disclaimer



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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.