

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/21/2020 Revision date: 05/21/2020 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Custom Rev 8330B Mix

Product code : AL0-131035

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Phenova

6390 Joyce Dr. Suite 100

Golden, CO 80403 - United States T 1-866-942-2978 - F 1-866-283-0269

info@phenova.com - www.phenova.com1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924

ChemTel Assistance (International) +1 813-248-0585

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids H225 Highly flammable liquid and vapour

Category 2
Acute toxicity (oral) H301 Toxic if swallows

Acute toxicity (oral) H301 Toxic if swallowed Category 3

Acute toxicity (dermal) H311 Toxic in contact with skin

Category 3
Serious eye damage/eye H319 Causes serious eye irritation

irritation Category 2
Germ cell mutagenicity H340 May cause genetic defects

Category 1B

Carcinogenicity Category H350 May cause cancer

Specific target organ H370 Causes damage to organs

toxicity (single exposure)

Category 1

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)









Signal word (GHS US) : Danger

Hazard statements (GHS US) : H225 - Highly flammable liquid and vapour

H301+H311 - Toxic if swallowed or in contact with skin

H319 - Causes serious eye irritation H340 - May cause genetic defects H350 - May cause cancer

H370 - Causes damage to organs

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P233 - Keep container tightly closed.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.

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P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 - If swallowed: Immediately call a poison center or doctor

P302+P352 - If on skin: Wash with plenty of water

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing P307+P311 - If exposed: Call a poison center/doctor

P308+P313 - If exposed or concerned: Get medical advice/attention.

P312 - Call a poison center or doctor if you feel unwell

P321 - Specific treatment (see supplemental first aid instruction on this label)

P322 - Specific treatment (see supplemental first aid instruction on this label)

P330 - Rinse mouth.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use media other than water to extinguish.

P403+P235 - Store in a well-ventilated place. Keep cool.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation

Other hazards which do not result in classification

No additional information available

Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

Not applicable

3.2. Mixtures

Name	Product identifier	Conc.
acetonitrile (Component)	(CAS-No.) 75-05-8	50
methanol (Component)	(CAS-No.) 67-56-1	48.3
2,4-dinitrotoluene (Component)	(CAS-No.) 121-14-2	0.1
2,6-dinitrotoluene (Component)	(CAS-No.) 606-20-2	0.1
nitrobenzene (Component)	(CAS-No.) 98-95-3	0.1
2-nitrotoluene (Component)	(CAS-No.) 88-72-2	0.1

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

Description of first aid measures

First-aid measures general Never give anything by mouth to an unconscious person. IF exposed or concerned: Get

medical advice/attention.

First-aid measures after inhalation Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact Remove affected clothing and wash all exposed skin area with mild soap and water, followed

by warm water rinse.

First-aid measures after eye contact Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness

persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and

symptoms

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Immediate medical attention and special treatment, if necessary

No additional information available

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up in absorbent material. Collect spillage.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Provide good ventilation in process area to prevent formation

0.2 mg/m³

of vapor.

Hygiene measures : Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated

clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep container tightly closed and in a well-ventilated

place. Keep away from any flames or sparking source.

Incompatible materials : Direct sunlight.

SECTION 8: Exposure controls/personal protection

ACGIH TWA (mg/m3)

8.1. Control parameters

ACGIH

Custom Rev 8330B Mix			
ACGIH	Local name	Acetonitrile	
ACGIH	ACGIH TWA (ppm)	20 ppm	
ACGIH	Remark (ACGIH)	LRT irr	
ACGIH	Regulatory reference	ACGIH 2018	
OSHA	OSHA PEL (TWA) (mg/m³)	70 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	40 ppm	
OSHA	Regulatory reference (US-OSHA)	OSHA	
2,4-dinitrotoluene (121-14-2)			
ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³	
2.6-dinitrotoluene (606-20-2)			

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nitrobenzene (98-95	-3)	
ACGIH	Local name	Nitrobenzene
ACGIH	ACGIH TWA (ppm)	1 ppm (Nitrobenzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	MeHb-emia
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	1 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
2-nitrotoluene (88-7)	2-2)	
ACGIH	Local name	Nitrotoluene, all isomers (1992)
ACGIH	ACGIH TWA (ppm)	2 ppm
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	30 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	5 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
acetonitrile (75-05-8)	
ACGIH	Local name	Acetonitrile
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	LRT irr
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	70 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	40 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
methanol (67-56-1)	·	
ACGIH	Local name	Methanol
ACGIH	ACGIH TWA (ppm)	200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (ppm)	250 ppm (Methanol; USA; Short time value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA

8.2. Appropriate engineering controls

Appropriate engineering controls

: Either local exhaust or general room ventilation is usually required.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.

Hand protection:

Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration

Eye protection:

Chemical goggles or safety glasses. Safety glasses

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Skin and body protection:

Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact

Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):







Other information:

Odor threshold

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Informa	tion on basic pl		

Physical state : Liquid

: Colorless : characteristic

: No data available

pH : No data available

Melting point : No data available

Freezing point : No data available
Boiling point : No data available

Flash point : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : Non flammable.

Vapor pressure : No data available

Relative vapor density at 20 °C : No data available

Relative density : No data available

Solubility : No data available Log Pow : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosion limits : No data available

Explosive properties : No data available

Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

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10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified		
Custom Rev 8330B Mix			
ATE US (oral)	171.527 mg/kg body weight		
ATE US (dermal)	484.368 mg/kg body weight		
2,4-dinitrotoluene (121-14-2)			
ATE US (oral)	100 mg/kg body weight		
ATE US (dermal)	300 mg/kg body weight		
ATE US (gases)	700 ppmV/4h		
ATE US (vapors)	3 mg/l/4h		
ATE US (dust, mist)	0.5 mg/l/4h		
2,6-dinitrotoluene (606-20-2)			
LD50 oral rat	177 mg/kg (Rat, Oral)		
ATE US (oral)	177 mg/kg body weight		
ATE US (dermal)	300 mg/kg body weight		
ATE US (gases)	700 ppmV/4h		
ATE US (vapors)	3 mg/l/4h		
ATE US (dust, mist)	0.5 mg/l/4h		
nitrobenzene (98-95-3)			
LD50 oral rat	640 mg/kg (Rat; Experimental value; 588 mg/kg bodyweight; Rat)		
LD50 dermal rabbit	760 mg/kg body weight (Rabbit; Experimental value)		
ATE US (oral)	100 mg/kg body weight		
ATE US (dermal)	760 mg/kg body weight		
ATE US (gases)	700 ppmV/4h		
ATE US (duet mist)	3 mg/l/4h		
ATE US (dust, mist)	0.5 mg/l/4h		
2-nitrotoluene (88-72-2)	004 m eller (D.4. Orell)		
LD50 oral rat	891 mg/kg (Rat, Oral)		
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal) 891 mg/kg body weight		
ATE US (oral)	891 Hig/kg body weight		
acetonitrile (75-05-8)	2 0000 m within his discoveried to /Empired and a majority at a OEOD 400 OA h. Dalbit Made / family		
LD50 dermal rabbit	> 2000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))		
ATE US (oral)	500 mg/kg body weight		
ATE US (dermal)	1100 mg/kg body weight		
ATE US (gases)	4500 ppmV/4h		
ATE US (vapors)	11 mg/l/4h		
ATE US (dust, mist)	1.5 mg/l/4h		
methanol (67-56-1)			
LD50 oral rat	> 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)		
LD50 dermal rabbit	15800 mg/kg (Rabbit; Literature study)		
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat; Literature study)		
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat; Literature study)		
ATE US (oral)	100 mg/kg body weight		
ATE US (dermal)	300 mg/kg body weight		
ATE US (gases)	700 ppmV/4h		
ATE US (vapors)	3 mg/l/4h		

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methanol (67-56-1)	
ATE US (dust, mist)	0.5 mg/l/4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: May cause genetic defects.
	Based on available data, the classification criteria are not met
Carcinogenicity	: May cause cancer.
2,4-dinitrotoluene (121-14-2)	
IARC group	2B - Possibly carcinogenic to humans
2,6-dinitrotoluene (606-20-2)	
IARC group	2B - Possibly carcinogenic to humans
nitrobenzene (98-95-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status Reasonably anticipated to be Human Carcinogen	
2-nitrotoluene (88-72-2)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
Reproductive toxicity	: Not classified
,	Based on available data, the classification criteria are not met
STOT-single exposure	: Causes damage to organs.
STOT-repeated exposure	: Not classified
OTOT Topodiou exposure	. Not oldooniod
Assiration borard	: Not classified
Aspiration hazard	. NOLCIASSITIEU
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Symptoms/effects

2,6-dinitrotoluene (606-20-2)			
LC50 fish 1	18.5 - 50 mg/l (96 h, Pimephales promelas)		
EC50 Daphnia 1	21.7 mg/l (48 h, Daphnia magna, Static system)		
nitrobenzene (98-95-3)			
LC50 fish 1	4.3 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 48 h; Oryzias latipes)		
EC50 Daphnia 1	35 mg/l (Other, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)		
2-nitrotoluene (88-72-2)			
LC50 fish 1	65 mg/l (96 h, Brachydanio rerio, Static system)		
EC50 Daphnia 1	5.4 mg/l (48 h, Daphnia magna)		
acetonitrile (75-05-8)			
LC50 fish 1	1640 mg/l (Other, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Soft water)		
EC50 Daphnia 1	> 1000 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semistatic system, Fresh water, Experimental value, GLP)		
ErC50 (algae)	9696 mg/l (ISO 10253, 72 h, Phaeodactylum, Static system, Salt water, Experimental value, GLP)		
methanol (67-56-1)			
LC50 fish 1	15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)		

: Not expected to present a significant hazard under anticipated conditions of normal use.

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methanol (67-56-1)			
EC50 Daphnia 1	> 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)		
LC50 fish 2	10800 mg/l (LC50; 96 h; Salmo gairdneri)		
12.2. Persistence and degradability			
Custom Rev 8330B Mix			
Persistence and degradability	Not established.		
2,4-dinitrotoluene (121-14-2)			
Persistence and degradability	Not readily biodegradable in water.		
Chemical oxygen demand (COD)	1.6 g O ₂ /g substance		
2,6-dinitrotoluene (606-20-2)			
Persistence and degradability	Not readily biodegradable in water.		
nitrobenzene (98-95-3)			
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.		
Biochemical oxygen demand (BOD)	0 g O₂/g substance		
ThOD	1.95 g O₂/g substance		
BOD (% of ThOD)	0		
2-nitrotoluene (88-72-2)			
Persistence and degradability	Non degradable in the soil. Not readily biodegradable in water.		
acetonitrile (75-05-8)	, ,		
Persistence and degradability	Readily biodegradable in water.		
Biochemical oxygen demand (BOD)	0.17 g O₂/g substance		
ThOD	3.12 g O ₂ /g substance		
mathemal (67 EC 4)	0.12 g O2g substance		
methanol (67-56-1) Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.		
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O _z /g substance		
Chemical oxygen demand (COD)			
ThOD	1.42 g O ₂ /g substance		
	1.5 g O₂/g substance		
BOD (% of ThOD)	0.8 (Literature study)		
12.3. Bioaccumulative potential			
Custom Rev 8330B Mix			
Bioaccumulative potential	Not established.		
2,4-dinitrotoluene (121-14-2)			
BCF fish 1	102.8 (336 h, Lepomis macrochirus)		
BCF fish 2	16 - 204 (Poecilia reticulata)		
BCF other aquatic organisms 1	13 (96 h, Daphnia magna)		
BCF other aquatic organisms 2	58 (96 h, Annelida)		
Log Pow	1.98 - 2.8		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
2,6-dinitrotoluene (606-20-2)	00 (0 1) 1 1 1 1		
BCF fish 1	22 (Poecilia reticulata)		
BCF other aquatic organisms 1 Log Pow	5225 (Algae, Biomass) 1.72 - 2.05		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
·	Low potential for bioaccumulation (bot > 500).		
nitrobenzene (98-95-3)	15 (PCE: 672 h)		
BCF fish 1 BCF fish 2	15 (BCF; 672 h) 1.6 - 7.7 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)		
BCF other aquatic organisms 1 24 (BCF)			
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<u> </u>					
nitrobenzene (98-95-3)					
Log Pow	1.85 (Calculated; 1.86; Experimental value; EU Method A.8: Partition Coefficient)				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				
2-nitrotoluene (88-72-2)					
BCF fish 1	12.5 - 29.9 (Cyprinus carpio, Test duration: 6 weeks)				
BCF fish 2	190 (72 h, Poecilia reticulata)				
Log Pow	2.3				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				
acetonitrile (75-05-8)					
BCF other aquatic organisms 1	3.162 (BCFWIN, Weight of evidence)				
Log Pow	-0.54 (Weight of evidence approach, Equivalent or similar to OECD 107, 25 °C)				
Bioaccumulative potential	Not bioaccumulative.				
methanol (67-56-1)					
BCF fish 1	< 10 (BCF; 72 h; Leuciscus idus)				
Log Pow	-0.77 (Experimental value; Other)				
Bioaccumulative potential Low potential for bioaccumulation (BCF < 500).					
I2.4. Mobility in soil					
2,4-dinitrotoluene (121-14-2)					
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.				
nitrobenzene (98-95-3)					
Surface tension	0.0439 N/m				
Log Koc	Koc,Other; 118; Calculated value; log Koc; Other; 2.07; Calculated value				
Ecology - soil	Low potential for adsorption in soil.				
2-nitrotoluene (88-72-2)					
Surface tension	0.042 N/m (15 °C)				
acetonitrile (75-05-8)					
Surface tension	0.029 N/m (20 °C)				
Log Koc	0.65 (log Koc, Calculated value)				
Ecology - soil	Highly mobile in soil.				
methanol (67-56-1)					
methanol (67-56-1) Surface tension	0.023 N/m (20 °C)				

12.5. Other adverse effects

Custom Rev 8330B Mix	
2,4-dinitrotoluene (121-14-2)	
2,6-dinitrotoluene (606-20-2)	
nitrobenzene (98-95-3)	
2-nitrotoluene (88-72-2)	
acetonitrile (75-05-8)	
methanol (67-56-1)	

Other information : Avoid release to the environment.

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SECTION 13: Disposal considerations

Disposal methods

: Dispose in a safe manner in accordance with local/national regulations. Product/Packaging disposal recommendations

Ecology - waste materials : Avoid release to the environment

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1992 Flammable liquids, toxic, n.o.s. (acetonitrile; methanol; 2,4-dinitrotoluene; 2,6-

dinitrotoluene; nitrobenzene; 2-nitrotoluene), 3 (6.1), II

UN1992 UN-No.(DOT)

Proper Shipping Name (DOT) : Flammable liquids, toxic, n.o.s.

acetonitrile; methanol; 2,4-dinitrotoluene; 2,6-dinitrotoluene; nitrobenzene; 2-nitrotoluene

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) II - Medium Danger

Subsidiary risk (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132

Hazard labels (DOT) : 3 - Flammable liquid

6.1 - Poison



: 202 DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx) : 243

DOT Symbols : G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110

kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

TP13 - Self-contained breathing apparatus must be provided when this hazardous material is transported by sea.

DOT Packaging Exceptions (49 CFR 173.xxx) DOT Quantity Limitations Passenger aircraft/rail : 1 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

DOT Vessel Stowage Location

: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Emergency Response Guide (ERG) Number : 131

Other information : No supplementary information available.

Transportation of Dangerous Goods

Not applicable

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Transport by sea

Transport document description (IMDG) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II

UN-No. (IMDG) : 1992

Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Class (IMDG) : 3 - Flammable liquids

: II - substances presenting medium danger Packing group (IMDG)

Subsidiary risks (IMDG) : 6.1 - Toxic substances

Air transport

Transport document description (IATA) : UN 1992 Flammable liquid, toxic, n.o.s., 3 (6.1), II

: 1992 UN-No. (IATA)

Proper Shipping Name (IATA) : Flammable liquid, toxic, n.o.s. Class (IATA) : 3 - Flammable Liquids Packing group (IATA) : II - Medium Danger Subsidiary hazards (IATA) : 6.1 - Toxic substances

SECTION 15: Regulatory information

15.1. US Federal regulations

2,4-dinitrotoluene (121-14-2)			
	Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	10 lb		
2,6-dinitrotoluene (606-20-2)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313			
CERCLA RQ	100 lb		
nitrobenzene (98-95-3)			
Listed on the United States TSCA (Toxic Substar Subject to reporting requirements of United State			
Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ 1000 lb			
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb		
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb		

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

CERCLA RQ 1000 lb

acetonitrile (75-05-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 5000 lb

methanol (67-56-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 5000 lb

15.2. International regulations

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2,4-dinitrotoluene (121-14-2)

Listed on the Canadian DSL (Domestic Substances List)

2,6-dinitrotoluene (606-20-2)

Listed on the Canadian DSL (Domestic Substances List)

nitrobenzene (98-95-3)

Listed on the Canadian DSL (Domestic Substances List)

2-nitrotoluene (88-72-2)

Listed on the Canadian DSL (Domestic Substances List)

acetonitrile (75-05-8)

Listed on the Canadian DSL (Domestic Substances List)

methanol (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

2,4-dinitrotoluene (121-14-2)

Listed on IARC (International Agency for Research on Cancer)

Listed on EPA Hazardous Air Pollutant (HAPS)

2,6-dinitrotoluene (606-20-2)

Listed on IARC (International Agency for Research on Cancer)

nitrobenzene (98-95-3)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

2-nitrotoluene (88-72-2)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

acetonitrile (75-05-8)

Listed on EPA Hazardous Air Pollutant (HAPS)

methanol (67-56-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

15.3. US State regulations

2,4-dinitrotoluene (121-14-2)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	Yes	2 μg/day	
2,6-dinitrotolue	ne (606-20-2)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	Yes		
nitrobenzene (9	8-95-3)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	Yes		

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2-nitrotoluene (88-72-2)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		
methanol (67-56-1)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		47000 μg/day (inhalation); 23,000 μg/day (oral)

SECTION 16: Other information

Revision date : 05/21/2020

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE

COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending

Regulation (EC) No 1907/2006.

Other information : None.

Full text of H-phrases:

tox of 11 philades.		
H225	Highly flammable liquid and vapour	
H301	Toxic if swallowed	
H311	Toxic in contact with skin	
H319	Causes serious eye irritation	
H340	May cause genetic defects	
H350	May cause cancer	
H370	Causes damage to organs	

Phenova US SDS REV

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