

Crude MCHM

Version 3.2 PRD Revision Date: 07/13/2018 SDS Number: 150000014291 SDSUS / Z8 / 0001 Date of last issue: 09/15/2016 Date of first issue: 09/06/2016

SECTION 1. IDENTIFICATION

Product name : Crude MCHM

Product code : 18717-00, P1871700, P18717EA, P18717ET, E1871701

Manufacturer or supplier's details

Company name of supplier : Eastman Chemical Company

Address : 200 South Wilcox Drive
Kingsport TN 37660-5280

Telephone : (423) 229-2000

Emergency telephone : CHEMTREC: +1-800-424-9300, +1-703-527-3887 CCN7321

Recommended use of the chemical and restrictions on use

Recommended use : Industrial chemical
Fuel Blending
Mining

Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Acute toxicity (Oral) : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

Skin sensitization : Category 1

Reproductive toxicity : Category 2

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

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H361d Suspected of damaging the unborn child.

Precautionary Statements

:

Prevention:

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/ eye protection/ face protection.
 P272 Contaminated work clothing must not be allowed out of the workplace.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.
 P362 Take off contaminated clothing and wash before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Ingredients**

Chemical name	CAS-No.	Concentration (% w/w)
4-methylcyclohexanemethanol	34885-03-5	60 - 89
4-(methoxymethyl)cyclohexanemethanol	98955-27-2	1 - 22
Water	7732-18-5	4 - 11
methyl 4-methylcyclohexanecarboxylate	51181-40-9	5
dimethyl 1,4-cyclohexanedicarboxylate	94-60-0	1
methanol	67-56-1	1
1,4-cyclohexanedimethanol	105-08-8	1 - 2

SECTION 4. FIRST AID MEASURES

If inhaled : Treat symptomatically.
 Remove to fresh air.

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Get medical attention if symptoms occur.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Take off contaminated clothing and shoes immediately.
Get medical advice/ attention.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
Get medical advice/ attention.

If swallowed : Seek medical advice.

Most important symptoms and effects, both acute and delayed : Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging the unborn child.

Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray
Dry chemical
Carbon dioxide (CO₂)
Foam

Unsuitable extinguishing media : None known.

Hazardous combustion products : No hazardous combustion products are known

Further information : None known.

Special protective equipment for fire-fighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Local authorities should be advised if significant spillages cannot be contained.

Environmental precautions : Avoid release to the environment.

Methods and materials for containment and cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

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Advice on protection against fire and explosion : None known.

Advice on safe handling : Avoid contact with skin, eyes and clothing.
Do not taste or swallow.
Use only with adequate ventilation.
Wash thoroughly after handling.

Conditions for safe storage : Keep container tightly closed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m ³	NIOSH REL
		ST	250 ppm 325 mg/m ³	NIOSH REL
		TWA	200 ppm 260 mg/m ³	OSHA Z-1
		STEL	250 ppm 325 mg/m ³	OSHA P0
		TWA	200 ppm 260 mg/m ³	OSHA P0

Engineering measures : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Respiratory protection : Wear respiratory protection.

Hand protection

Remarks : Wear suitable gloves.

Eye protection : Safety glasses

Protective measures : Wear suitable protective equipment.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	colorless
Odor	:	alcohol, licorice
Odor Threshold	:	0.15 ppb
pH	:	not determined
Melting point/freezing point	:	32 °F / 0 °C
Boiling point/boiling range	:	356 °F / 180 °C
Flash point	:	235.0 °F / 112.8 °C
		Method: Seta closed cup
Evaporation rate	:	not determined
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Vapor pressure	:	24 mbar (68 °F / 20 °C)
Relative vapor density	:	not determined
Relative density	:	< 1 (estimated)
Solubility(ies) Water solubility	:	appreciable
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	not determined
Decomposition temperature	:	Thermal stability not tested. Low stability hazard expected at normal operating temperatures.
Viscosity Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined
Explosive properties	:	No data available
Oxidizing properties	:	No data available

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SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	None known.
Conditions to avoid	:	Incompatible materials
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	Carbon dioxide (CO ₂) Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Harmful if swallowed.

Product:

Acute oral toxicity	:	LD50 Oral (Rat): 825 mg/kg
Acute inhalation toxicity	:	Remarks: No data available
Acute dermal toxicity	:	LD50 Dermal (Rat): > 2,000 mg/kg

Ingredients:**methanol:**

Acute oral toxicity	:	LD50 Oral (Rat): 5,600 mg/kg
Acute dermal toxicity	:	LD50 Dermal (Rabbit): 17,100 mg/kg

dimethyl 1,4-cyclohexanedicarboxylate:

Acute oral toxicity	:	LD50 Oral (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 2.91 mg/l Exposure time: 6 h
Acute dermal toxicity	:	LD50 Dermal (Guinea pig): > 10 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Product:

Species	:	Rabbit
Exposure time	:	4 h

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Exposure time : 24 h

Respiratory or skin sensitization**Skin sensitization**

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Product:

Test Type : Skin sensitization
Species : Mouse
Result : positive
Remarks : National Toxicology Program Study

Test Type : Skin sensitization
Species : Guinea pig
Result : negative

Ingredients:**4-methylcyclohexanemethanol:**

Test Type : Skin sensitization
Species : Mouse
Result : Not a skin sensitizer.
Remarks : National Toxicology Program Study

methanol:

Test Type : Skin Sensitization
Species : Guinea pig
Result : non-sensitizing

dimethyl 1,4-cyclohexanedicarboxylate:

Species : Guinea pig
Result : Not a skin sensitizer.
Remarks : Read-across from a similar material

1,4-cyclohexanedimethanol:

Test Type : OECD 406: Guinea pig sensitization
Species : Guinea pig
Result : Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Product:

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: National Toxicology Program Study

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Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Result: negative
Remarks: National Toxicology Program Study

Ingredients:**4-methylcyclohexanemethanol:**

Genotoxicity in vitro : Test Type: Ames test
Result: negative
Remarks: National Toxicology Program Study

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Result: negative
Remarks: National Toxicology Program Study

4-(methoxymethyl)cyclohexanemethanol:

Genotoxicity in vitro : Test Type: Ames test
Result: negative
Remarks: National Toxicology Program Study

methyl 4-methylcyclohexanecarboxylate:

Genotoxicity in vitro : Test Type: Ames test
Result: negative
Remarks: National Toxicology Program Study

dimethyl 1,4-cyclohexanedicarboxylate:

Genotoxicity in vitro : Test Type: Mutagenicity - Mammalian
Metabolic activation: Metabolic activation
Result: positive

Test Type: Chromosome aberration test in vitro
Metabolic activation: Metabolic activation
Result: positive

Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: Ames test
Result: positive
Remarks: National Toxicology Program Study

1,4-cyclohexanedimethanol:

Genotoxicity in vitro : Test Type: Mutagenicity - Mammalian

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Metabolic activation: +/- activation
 Method: In vitro Mammalian Cell Gene Mutation Test
 Result: negative

Test Type: Ames test
 Result: negative
 Remarks: National Toxicology Program Study

Genotoxicity in vivo : Species: Rat
 Application Route: oral: gavage
 Method: Mammalian Bone Marrow Chromosome Aberration Test
 Result: negative

Carcinogenicity

Not classified based on available information.

Product:

Remarks : This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Carcinogenicity - Assessment : This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

IARC No ingredient 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 on OSHA's list of regulated carcinogens.

NTP No ingredient 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 the unborn child.

Product:

Effects on fertility : Remarks: No data available

STOT-single exposure

Not classified based on available information.

Product:

Assessment : Not classified
 Remarks : Not classified

Ingredients:**methanol:**

Target Organs : optic nerve, Central nervous system
 Assessment : Causes damage to organs.

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1,4-cyclohexanedimethanol:

Species : Rat, male
: 479 mg/kg
Application Route : in drinking water
Exposure time : 90 d

Species : Rat, female
: 754 mg/kg
Application Route : in drinking water
Exposure time : 90 h

Aspiration toxicity

Not classified based on available information.

Product:

No data available

Information on likely routes of exposure**Product:**

Inhalation : Remarks: None known.
Skin contact : Remarks: Causes skin irritation.
Eye contact : Remarks: Causes serious eye irritation.
Ingestion : Remarks: Harmful if swallowed.

Further information**Product:**

Test Type : Human Birthweight Study
Remarks : No meaningful differences in birthweights.
West Virginia Department of Health & Human Resources,
Bureau for Public Health in conjunction with CDC and ATSDR

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 57.4 mg/l
Exposure time: 96 h
Toxicity to daphnia and other : EC50 (daphnid): 98.1 mg/l
aquatic invertebrates : Exposure time: 48 h

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Ingredients:**methanol:**

Toxicity to fish : LC50 (*Lepomis macrochirus* (Bluegill sunfish)): 15,400 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 10,000 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (*Pseudokirchneriella subcapitata* (algae)): 22,000 mg/l
Exposure time: 96 h

dimethyl 1,4-cyclohexanedicarboxylate:

Toxicity to fish : LC50 (*Pimephales promelas* (fathead minnow)): 23 mg/l
Exposure time: 96 h
Remarks: Read-across from a similar material

Toxicity to daphnia and other aquatic invertebrates : LC50 (*Daphnia magna* (Water flea)): > 100 mg/l
Exposure time: 48 h
Remarks: Read-across from a similar material

Toxicity to algae : EC50 (*Chlorella pyrenoidosa*): > 124.6 mg/l
Exposure time: 72 h

NOEC: (*Chlorella pyrenoidosa*): > 124.6 mg/l
Exposure time: 72 h

1,4-cyclohexanedimethanol:

Toxicity to fish : LC50 (Fish): > 125.3 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 (*Daphnia magna* (Water flea)): > 100 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (*Chlorella pyrenoidosa*): > 122.9 mg/l
Exposure time: 72 h

NOEC: (*Chlorella pyrenoidosa*): >= 122.9 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Fish): >= 125.3 mg/l

Persistence and degradability**Product:**

Biodegradability : Result: Inherently biodegradable.

Biochemical Oxygen Demand (BOD) : BOD-5:
70 mg/g

: BOD-20:

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1,300 mg/g

Chemical Oxygen Demand (COD) : 2,450 mg/g

BOD/COD : BOD/COD: 2.8 %

Ingredients:**methanol:**

Biodegradability : Concentration: 10 mg/l
Biodegradation: 95 %
Exposure time: 20 d

Biochemical Oxygen Demand (BOD) : BOD-5:
770 mg/g
Incubation time: 5 d

BOD-20:
1,260 mg/g
Incubation time: 20 d

Chemical Oxygen Demand (COD) : 1,410 mg/g

BOD/COD : BOD/COD: 54.6 %

ThOD : 1,500 mg/g

BOD/ThOD : 51.3 %

dimethyl 1,4-cyclohexanedicarboxylate:

Biodegradability : Biodegradation: 55 %
Exposure time: 28 d
Remarks: Not readily biodegradable.

1,4-cyclohexanedimethanol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 99.2 %
Exposure time: 28 d
Method: Ready Biodegradability: DOC Die Away Test

Biochemical Oxygen Demand (BOD) : BOD-5:
25 mg/g

BOD-20:
1,400 mg/g

Chemical Oxygen Demand (COD) : 2,400 mg/g

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Bioaccumulative potential**Ingredients:****methanol:**

Partition coefficient: n-octanol/water : Pow: 0.17
log Pow: -0.77

dimethyl 1,4-cyclohexanedicarboxylate:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 2.29

1,4-cyclohexanedimethanol:

Bioaccumulation : Bioconcentration factor (BCF): 4.45
Method: estimated

Partition coefficient: n-octanol/water : log Pow: 0.36 - 1.47 (77 °F / 25 °C)

Mobility in soil**Ingredients:****1,4-cyclohexanedimethanol:**

Distribution among environmental compartments : log Koc: 0.499 - 1.6
Method: QSAR model

Other adverse effects**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Ingredients:**1,4-cyclohexanedimethanol:**

Results of PBT and vPvB assessment : Not fulfilling vPvB (very persistent, very bioaccumulative) criteria.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

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SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Ingredients	CAS-No.	Component	TPQ (lbs)
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SARA 311/312 Hazards : Acute Health Hazard

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

methanol	67-56-1	1 %
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Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

methanol	67-56-1	1 %
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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 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

methanol	67-56-1	>= 1 - < 5 %
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Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

methanol	67-56-1
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Pennsylvania Right To Know

4-methylcyclohexanemethanol	34885-03-5
4-(methoxymethyl)cyclohexanemethanol	98955-27-2
Water	7732-18-5
methyl 4-methylcyclohexanecarboxylate	51181-40-9
methanol	67-56-1

New Jersey Right To Know

4-methylcyclohexanemethanol	34885-03-5
4-(methoxymethyl)cyclohexanemethanol	98955-27-2
Water	7732-18-5
methyl 4-methylcyclohexanecarboxylate	51181-40-9
methanol	67-56-1
dimethyl 1,4-cyclohexanedicarboxylate	94-60-0
1,4-cyclohexanedimethanol	105-08-8

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

CH INV : On the inventory, or in compliance with the inventory

DSL : This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.

TSCA : On TSCA Inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

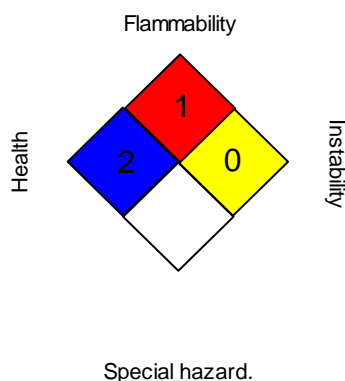
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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH		2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; 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 Chemi-

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icals 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; 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

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