

SAFETY DATA SHEET

ZEON

ZDMAC

Section 1. Identification

GHS product identifier : ZDMAC

Chemical name : N,N-dimethylacetamide

CAS number : 127-19-5

Other means of identification : Not available.

Product code : Z02501

Product use : Electronic applications

Supplier's details : Zeon Specialty Materials Inc.
1731 Technology Drive #595
San Jose, CA 95110
USA
Phone : +1-408-641-7889
FAX : +1-408-516-9382

e-mail address of person responsible for this SDS : Mark Nakamura: mark.nakamura@zeonsmi.com
Chris Chen: chris.chen@zeonsmi.com

Emergency telephone number (with hours of operation) : CHEMTREC: 1-800-424-9300 (24 hours a day/7 days per week)
Outside the United States (Call Collect): 001-703-527-3887

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 4
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
EYE IRRITATION - Category 2A
TOXIC TO REPRODUCTION (Fertility) - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 1B

GHS label elements

Hazard pictograms**Signal word**

: Danger

Hazard statements: Combustible liquid.
Harmful in contact with skin or if inhaled.
Causes serious eye irritation.
May damage fertility or the unborn child.

Precautionary statements

Prevention: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves. Wear eye or face protection. Wear protective clothing.
Keep away from flames and hot surfaces. - No smoking.
Use only outdoors or in a well-ventilated area.
Avoid breathing vapor.
Wash hands thoroughly after handling.

Section 2. Hazards identification

Response	: IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. In case of fire: Use carbon dioxide, dry chemical or water fog for extinction.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Eye, skin and respiratory irritation may occur due to vapors and fumes created during processing operations. In a fire, thermal decomposition may produce toxic gases/fumes. See Section 10 for details.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Substance
Chemical name	: N,N-dimethylacetamide
Other means of identification	: Not available.
Product code	: Z02501

CAS number/other identifiers

CAS number : 127-19-5

Ingredient name	%	CAS number
N,N-dimethylacetamide	~100	127-19-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 30 minutes. Get medical attention immediately.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation develops. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Call a POISON CENTER or doctor. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Section 4. First aid measures

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. Inhalation of high concentrations of vapor may affect the central nervous system (CNS). CNS symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and nausea.
- Skin contact** : Harmful in contact with skin.
- Ingestion** : May be harmful if ingested. Irritating to mouth, throat and stomach. Ingestion may cause nausea, diarrhea and vomiting.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Not available.
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : SMALL FIRE: Use water spray, dry chemical or carbon dioxide to extinguish.
LARGE FIRE: Use aqueous foam or water fog.
Use water spray to keep fire-exposed containers cool.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Combustible liquid. Keep away from heat, sparks and flame. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. In case of fire irritating, corrosive and/or toxic gases can be formed.

- Hazardous thermal decomposition products** : In a fire, decomposition may produce toxic gases/fumes. See Section 10 for information on decomposition products.

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Combustible liquid. No action shall be taken involving any personal risk or without suitable training. Wear protective gloves/clothing and eye/face protection. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wash hands thoroughly after handling. Remove contaminated clothing and wash it before reuse.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.
See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Contain and collect spillage. Absorb remainder with an inert material and place in an appropriate waste disposal container. Wash spill area with soap and water.
- Large spill** : Stop leak if without risk. Keep unnecessary personnel away. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage. For large spills, a suppression foam is recommended to minimize evolution of vapors. Soak up remainder with a non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. Wash spill area with soap and water.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

Combustible liquid. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
N,N-dimethylacetamide	<p>ACGIH TLV (United States, 3/2017). Absorbed through skin. TWA: 10 ppm 8 hours. TWA: 36 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 10 ppm 10 hours. TWA: 35 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 6/2016). Absorbed through skin. TWA: 10 ppm 8 hours. TWA: 35 mg/m³ 8 hours.</p>

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. If necessary to avoid possible splashing, wear a full face shield.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. Wash hands thoroughly after handling.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Wear work clothing with long sleeves. Remove contaminated clothing and wash it before reuse. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Respiratory protection : A NIOSH approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, during equipment malfunction, or product hangup or stagnation during processing that may result in decomposition.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.
Color : Colorless.
Odor : Ammonia. [Slight]
Odor threshold : 47 ppm
pH : 4 at 200 g/l at 20°C (68°F)
Melting point : 05FLP-20
Boiling point : 166°C (330.8°F)
Flash point : Closed cup: 66°C (150.8°F)
Evaporation rate : <0.17 (butyl acetate = 1)
Flammability (solid, gas) : Not applicable.
Lower and upper explosive (flammable) limits : Lower: 1.8%
Upper: 11.5%
Vapor pressure : 1.76 hPa [20°C (68°F)]
Vapor density : 3.01 [Air = 1]
Relative density : 0.937 [water = 1]
Solubility : Not available.
Solubility in water : Miscible in water.
Partition coefficient: n-octanol/water : -0.77
Auto-ignition temperature : 490°C (914°F)
Decomposition temperature : Not available.
Viscosity : Not available.

Section 10. Stability and reactivity

Reactivity : Under normal conditions of storage and use, hazardous polymerization will not occur.

Chemical stability : Stable under recommended storage and handling conditions (see Section 7).

Possibility of hazardous reactions : No specific data.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Take precautionary measures against static discharge. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
carbon tetrachloride
oxidizing materials
organic halides
attacks rubber and plastic

Section 10. Stability and reactivity

Hazardous decomposition products : Decomposition products may include the following materials:
 carbon monoxide
 carbon dioxide
 ammonia
 nitrogen oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
N,N-dimethylacetamide	LC50 Inhalation Gas.	Rat	2475 ppm	1 hours
	LD50 Dermal	Guinea pig	<940 mg/kg	-
	LD50 Dermal	Rabbit	2240 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-

Conclusion/Summary : Harmful in contact with skin or if inhaled.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
N,N-dimethylacetamide	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Eyes - Mild irritant (Draize test)	Rabbit	-	24 hours 500 mg	-
	Skin - Non-irritating to the skin. (OECD Guideline 404)	Rabbit	-	-	-

Conclusion/Summary

Eyes : Causes serious eye irritation.

Sensitization

Conclusion/Summary

Skin : Non-sensitizer to skin.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
N,N-dimethylacetamide	Chromosomal aberration study.	Subject: Bacteria (Salmonella typhimurium and Eschericia coli)	Negative; Structural aberration was observed.

Conclusion/Summary : No mutagenic effect.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
N,N-dimethylacetamide	Positive	-	Positive (Great vessel malformations and anasarca)	Rat	Oral: 400 mg/kg bw/day	-
	Positive	-	Positive	Rat	Oral: NOEL of 65 mg/kg bw/day	-

Section 11. Toxicological information

	Negative	-	Positive (Small increase in cardiac malformations)	Rabbit	Inhalation: 570 ppm (2.052mg/ L)	-
	-	Negative	-	Rat - Male	Inhalation: 386 ppm (1.4 mg/L)	43 days
	-	Negative (No effects observed in a sperm abnormalities test)	-	Mouse - Male	Inhalation: 700 ppm (2.52mg/ L)	6 weeks

Conclusion/Summary : N,N-dimethylacetamide is considered a developmental toxicant.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Ocular.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. Inhalation of high concentrations of vapor may affect the central nervous system (CNS). CNS symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and nausea.
- Skin contact** : Harmful in contact with skin.
- Ingestion** : May be harmful if ingested. Irritating to mouth, throat and stomach. Ingestion may cause nausea, diarrhea and vomiting.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Not available.
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
N,N-dimethylacetamide	Acute EC50 >500 mg/l	Daphnia	48 hours

Conclusion/Summary : Not determined.

Persistence and degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
N,N-dimethylacetamide	0.8	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Label						
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	Marine Pollutant: No	No.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR:** N,N-dimethylacetamide
TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

Section 15. Regulatory information

DEA List II Chemicals : Not listed
(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 4
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
EYE IRRITATION - Category 2A
TOXIC TO REPRODUCTION (Fertility) - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 1B

Composition/information on ingredients

Name	%	Classification
N,N-dimethylacetamide	100	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION (Fertility) - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 1B

State regulations

Massachusetts : This material is listed.
New York : This material is not listed.
New Jersey : This material is listed.
Pennsylvania : This material is listed.

California Prop. 65

⚠ WARNING: This product can expose you to N, N-Dimethylacetamide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
N, N-Dimethylacetamide	-	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Europe : This material is listed or exempted.
Japan : **Japan inventory (ENCS):**

Section 15. Regulatory information

This material is listed or exempted.
 Republic of Korea : This material is listed or exempted.
 United States : This material is listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.), Fourth Edition

Health	*	2
Flammability		2
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4	On basis of test data
ACUTE TOXICITY (dermal) - Category 4	Expert judgment
ACUTE TOXICITY (inhalation) - Category 4	Expert judgment
EYE IRRITATION - Category 2A	Expert judgment
TOXIC TO REPRODUCTION (Fertility) - Category 1B	Expert judgment
TOXIC TO REPRODUCTION (Unborn child) - Category 1B	Expert judgment

History

Date of printing : 01/20/2018
 Date of issue/Date of revision : 01/20/2018
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 Version : 3

Section 16. Other information

Key to abbreviations : ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
DOT = Department of Transportation
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
TDG = Transportation of Dangerous Goods
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

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