Safety Data Sheet
DMS-4-828 Part A - P13031-NA

Safety Data Sheet dated 9/18/2018, version 4

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: DMS-4-828 Part A

Other means of identification:

SDS code: P13031-NA

Recommended use of the chemical and restrictions on use

Recommended use:

SHIM

Industrial uses

Professional uses

Restrictions on use:

No uses advised against are identified.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company:

Dysol Inc. - 791 Westport Parkway - Fort Worth, TX 76177 / Phone: 1-817-335-1826 / csr-na@socomore.com/ Fax Number: 817-335-2405

Distributor: SOCOMORE S.A.S. - Zone Industrielle du Prat - CS 23707 - 56037 VANNES CEDEX - France - Tel : +33 (0)2 97 43 76 83 - Fax : +33 (0)2 97 54 20 26

Distributor: Socomore Ltd - 5, Coe Avenue - Loughborough - Leicestershire - LE11 4SE - UK - Tel: +44 1509 262040 - Fax: +44 1509 262046

Distributor: Socomore Iberia - Calle Diputacio, 260 - 08007 Barcelona - Espana - Tel: +34 917 693 962 - Fax: +34 902 908 966

Distributor: MagChem Inc. 1271, rue Ampere, suite 101, Boucherville, QC, J4B 5Z5 Canada - Tel: 1-450 641 8500 - Fax: 1-450 655 1717

Distributor: Socomore GmbH - c/o MAZARS GmbH - Theodor-Stern-Kai 1 - 60596 Frankfurt am Main - Deutschland - Tel: +49 (0)89 20 70 28 83 - Fax: +49 (0) 89 88 91 98 16

Distributor: Socomore Trading Shangai - 355 East Kang Qiao Road - Kang Qiao Industrial Zone - Pudong - 201315 Shangai - Tel: 862158131133 - Fax: 862158131933

Dystrybutor : SOCOMORE SPzoo - Ul. Piekna 18, 00-549 Warszawa Polska - Tel : +48 608 454 114 - Fax : +48 (22) 621 61 09

Competent person responsible for the safety data sheet:

techdirsocomore@socomore.com

Emergency phone number

CHEMTEL: 1-800-255-3924 (USA) / CANUTEC: 1-613-996-6666 (CANADA)

2. HAZARD(S) IDENTIFICATION

Classification of the chemical

Warning, Skin Irrit. 2, Causes skin irritation.

Warning, Eye Irrit. 2A, Causes serious eye irritation.

Warning, Skin Sens. 1, May cause an allergic skin reaction.

Danger, Carc. 1A, May cause cancer if inhaled.

Label elements
Hazard pictograms:

Danger
Hazard statements:
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H350 May cause cancer if inhaled.
Precautionary statements:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with applicable regulations.
Special Provisions:
None
Hazards not otherwise classified identified during the classification process:
None
Ingredient(s) with unknown acute toxicity:
None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
N.A.
Mixtures
Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

>= 25% - < 30% QUARTZ
CAS: 14808-60-7, EC: 238-878-4

A.6/1A Carc. 1A H350

A.8/1 STOT SE 1 H370

>= 20% - < 25% bis-[4-(2,3-epoxipropoxi)phenyl]propane
Index number: 603-073-00-2, CAS: 1675-54-3, EC: 216-823-5


A.3/2A Eye Irrit. 2A H319


A.2/2 Skin Irrit. 2 H315


A.4.2/1 Skin Sens. 1 H317

>= 20% - < 25% Reaction Product of Phenol-Formaldehyde Novolac and Epichlorohydrin
CAS: 28064-14-4


A.4.2/1 Skin Sens. 1 H317

>= 7% - < 10% glass oxide
CAS: 65997-17-3


A.2/2 Skin Irrit. 2 H315


A.8/3 STOT SE 3 H335

4. FIRST-AID MEASURES

Description of necessary measures

In case of skin contact:

Immediately take off all contaminated clothing.
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting. Obtain a medical examination.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

None

Indication of immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
No particular treatment.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Water.
Carbon dioxide (CO2).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

Hazardous combustion products:
None
Explosive properties: N.A.
Oxidizing properties: N.A.
Special protective equipment and precautions for fire-fighters
Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures
Wear personal protection equipment.
Remove all sources of ignition.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Provide adequate ventilation.
Remove persons to safety.
Use appropriate respiratory protection.
See protective measures under point 7 and 8.
Methods and materials for containment and cleaning up
Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Do not use on extensive surface areas in premises where there are occupants.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
Conditions for safe storage, including any incompatibilities
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.
Storage temperature:
Store at ambient temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
QUARTZ - CAS: 14808-60-7
- OEL Type: ACGIH - TWA(8h): 0.025 mg/m3 - Notes: (R), A2 - Pulm fibrosis, lung cancer
DNEL Exposure Limit Values
N.A.
PNEC Exposure Limit Values
N.A.
Appropriate engineering controls:
None
Individual protection measures

Eye protection:
Use close fitting safety goggles, don't use eye lens.
Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.
Protection for hands:
Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.
Respiratory protection:
Not needed for normal use.
Use adequate protective respiratory equipment.
Thermal Hazards:
None

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Value	Method:	Notes
Appearance and colour:	HEAVY MASTIC, OPAQUE,GREY	--	--
Odour:	N.A.	--	--
Odour threshold:	N.A.	--	--
pH:	N.A.	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	> 260° C / > 500° F	--	--
Flash Point (° F):	> 500° F (TTC)	--	--
Flash point (° C):	> 260° C (TTC)	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	0.95	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	1.4@20° C/68° F	--	--
Solubility in water:	N.A.	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	N.A.	--	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

10. STABILITY AND REACTIVITY

Reactivity
Stable under normal conditions
Chemical stability
Stable under normal conditions
Possibility of hazardous reactions
None
Conditions to avoid
Stable under normal conditions.
Incompatible materials
None in particular.
Hazardous decomposition products
None.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Toxicological information of the product:
N.A.
Toxicological information of the main substances found in the product:
bis-[4-(2,3-epoxipropoxi)phenyl]propane - CAS: 1675-54-3
LD50 (RAT) ORAL: 11 G/KG (11000 MG/KG)
Substance(s) listed on the NTP report on Carcinogens:
None.
Substance(s) listed on the IARC Monographs:
QUARTZ - Group 1
bis-[4-(2,3-epoxipropoxi)phenyl]propane - Group 3.
Substance(s) listed as OSHA Carcinogen(s):
None.
Substance(s) listed as NIOSH Carcinogen(s):
QUARTZ.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Adopt good working practices, so that the product is not released into the environment.
N.A.
Persistence and degradability
N.A.
Bioaccumulative potential
N.A.
Mobility in soil
N.A.
Other adverse effects
No harmful effects expected.

13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

UN number

ADR-UN Number:	3082
DOT number:	UN3082
IATA-UN Number:	3082
IMDG-UN Number:	3082

UN proper shipping name

ADR-Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction Product of Phenol-Formaldehyde Novolac and Epichlorohydrin)
DOT-Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction Product of Phenol-Formaldehyde Novolac and Epichlorohydrin)
IATA-Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction Product of Phenol-Formaldehyde Novolac and Epichlorohydrin)
IMDG-Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction Product of Phenol-Formaldehyde Novolac and Epichlorohydrin)

Transport hazard class(es)

ADR-Class:	9
DOT Hazard Class:	9
ADR - Hazard identification number:	90
IATA-Class:	9
IATA-Label:	9
IMDG-Class:	9

Packing group

ADR-Packing Group:	III
DOT Packing group:	III
IATA-Packing group:	III
IMDG-Packing group:	III

Environmental hazards

ADR-Enviromental Pollutant:	Yes
IMDG-Marine pollutant:	Marine Pollutant
Most important toxic component:	Reaction Product of Phenol-Formaldehyde Novolac and Epichlorohydrin

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

N.A.

Special precautions

DOT Special provisions:	8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Labels:	9

ADR-Subsidiary risks: -
ADR-S.P.: 274 335 375 601
ADR-Transport category (Tunnel restriction code): 3 (E)
IATA-Passenger Aircraft: 964
IATA-Subsidiary risks: -
IATA-Cargo Aircraft: 964
IATA-S.P.: A97 A158 A197
IATA-ERG: 9L
IMDG-EmS: F-A , S-F
IMDG-Subsidiary risks: -
IMDG-Stowage and handling: Category A
IMDG-Segregation: -
Q.L.: 5L
Q.E.: E1

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act
TSCA inventory: all the components are listed on the TSCA inventory.
TSCA listed substances:
QUARTZ is listed in TSCA Section 8b
bis-[4-(2,3-epoxipropoxi)phenyl]propane is listed in TSCA Section 8b, Section 8d HSDR
Reaction Product of Phenol-Formaldehyde Novolac and Epichlorohydrin is listed in TSCA Section 8b
glass oxide is listed in TSCA Section 8b.

SARA - Superfund Amendments and Reauthorization Act
Section 302 - Extremely Hazardous Substances: no substances listed.
Section 304 - Hazardous substances: no substances listed.
Section 313 - Toxic chemical list: no substances listed.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
No substances listed.

CAA - Clean Air Act
CAA listed substances:
None.

CWA - Clean Water Act
CWA listed substances:
None.

USA - State specific regulations

California Proposition 65
Substance(s) listed under California Proposition 65:
None.

Massachusetts Right to know
Substance(s) listed under Massachusetts Right to know:
QUARTZ.

New Jersey Right to know
Substance(s) listed under New Jersey Right to know:
QUARTZ.

Pennsylvania Right to know
Substance(s) listed under Pennsylvania Right to know:
QUARTZ.

The following substance(s) in this product has/have an identification by CAS number either in countries not affected by the REACH regulation or in regulations not yet updated to reflect the new naming convention for hydrocarbon solvents:

16. OTHER INFORMATION

Full text of phrases referred to in Section 3:

H350 May cause cancer.
H370 Causes damage to organs.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

Safety Data Sheet dated 9/18/2018, version 4

Disclaimer:

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This Safety Data Sheet cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average

Safety Data Sheet
DMS-4-828 Part B - P13203-NA

Safety Data Sheet dated 9/18/2018, version 3

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: DMS-4-828 Part B

Other means of identification:

SDS code: P13203-NA

Recommended use of the chemical and restrictions on use

Recommended use:

SHIM

Industrial uses

Professional uses

Restrictions on use:

No uses advised against are identified.

Name, address,Telephone number of the manufacturer, importer, or other responsible party

Company:

Dysol Inc. - 791 Westport Parkway - Fort Worth, TX 76177 / Phone: 1-817-335-1826 / csr-na@socomore.com/ Fax Number: 817-335-2405

Distributor: SOCOMORE S.A.S. - Zone Industrielle du Prat - CS 23707 - 56037 VANNES CEDEX - France - Tel : +33 (0)2 97 43 76 83 - Fax : +33 (0)2 97 54 20 26

Distributor: Socomore Ltd - 5, Coe Avenue - Loughborough - Leicestershire - LE11 4SE - UK - Tel: +44 1509 262040 - Fax: +44 1509 262046

Distributor: Socomore Iberia - Calle Diputacio, 260 - 08007 Barcelona - Espana - Tel: +34 917 693 962 - Fax: +34 902 908 966

Distributor: MagChem Inc. 1271, rue Ampere, suite 101, Boucherville, QC, J4B 5Z5 Canada - Tel: 1-450 641 8500 - Fax: 1-450 655 1717

Distributor: Socomore GmbH - c/o MAZARS GmbH - Theodor-Stern-Kai 1 - 60596 Frankfurt am Main - Deutschland - Tel: +49 (0)89 20 70 28 83 - Fax: +49 (0) 89 88 91 98 16

Distributor: Socomore Trading Shangai - 355 East Kang Qiao Road - Kang Qiao Industrial Zone - Pudong - 201315 Shangai - Tel: 862158131133 - Fax: 862158131933

Dystrybutor : SOCOMORE SPzoo - Ul. Piekna 18, 00-549 Warszawa Polska - Tel : +48 608 454 114 - Fax : +48 (22) 621 61 09

Competent person responsible for the safety data sheet:

techdirsocomore@socomore.com

Emergency phone number

CHEMTEL: 1-800-255-3924 (USA) / CANUTEC: 1-613-996-6666 (CANADA)

2. HAZARD(S) IDENTIFICATION

Classification of the chemical


Warning, Acute Tox. 4, Harmful if swallowed.


Danger, Skin Corr. 1B, Causes severe skin burns and eye damage.


Danger, Eye Dam. 1, Causes serious eye damage.


Warning, Skin Sens. 1, May cause an allergic skin reaction.


Warning, Carc. 2, Suspected of causing cancer if inhaled.


Danger, Repr. 1B, May damage fertility or the unborn child.

Lact., May cause harm to breast-fed children.

Label elements
Hazard pictograms:

Danger
Hazard statements:
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer if inhaled.
H360 May damage fertility or the unborn child.
H362 May cause harm to breast-fed children.
Precautionary statements:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P263 Avoid contact during pregnancy/while nursing.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER if you feel unwell.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
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.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P312 Call a POISON CENTER/doctor if you feel unwell.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with applicable regulations.
Special Provisions:
None
Hazards not otherwise classified identified during the classification process:
None
Ingredient(s) with unknown acute toxicity:
None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
N.A.
Mixtures
Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

>= 60% - < 70% Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines
CAS: 68410-23-1, EC: 614-452-7


A.2/2 Skin Irrit. 2 H315


A.3/1 Eye Dam. 1 H318


A.4.2/1 Skin Sens. 1 H317

>= 20% - < 25% 3,6-diazaoctanethylenediamin;triethylenetetramine
Index number: 612-059-00-5, CAS: 112-24-3, EC: 203-950-6


A.1/4/Oral Acute Tox. 4 H302


A.2/1B Skin Corr. 1B H314


A.4.2/1 Skin Sens. 1 H317


A.1/4/Dermal Acute Tox. 4 H312

>= 5% - < 7% 2-ethyl-4-methylimidazole
CAS: 931-36-2, EC: 213-234-5


A.1/4/Oral Acute Tox. 4 H302


A.4.2/1 Skin Sens. 1 H317

US-HAE/C3 Aquatic Chronic 3 H412


A.3/1 Eye Dam. 1 H318

>= 0.5% - < 1% 4-Methylimidazole
CAS: 822-36-6, EC: 212-497-3


A.1/4/Oral Acute Tox. 4 H302


A.6/2 Carc. 2 H351


A.3/1 Eye Dam. 1 H318


A.1/4/Dermal Acute Tox. 4 H312


A.2/1A Skin Corr. 1A H314

>= 0.1% - < 0.25% 2-(2-aminoethylamino)ethanol;(AEEA)
Index number: 603-194-00-0, CAS: 111-41-1, EC: 203-867-5


A.7/1B Repr. 1B H360

A.7/Lact. Lact. H362


A.2/1B Skin Corr. 1B H314


A.4.2/1 Skin Sens. 1 H31

>= 0.1% - < 0.25% 2-piperazin-1-ylethylamine
Index number: 612-105-00-4, CAS: 140-31-8, EC: 205-411-0


A.2/1B Skin Corr. 1B H314


A.4.2/1 Skin Sens. 1 H317

US-HAE/C3 Aquatic Chronic 3 H412


A.1/4/Oral Acute Tox. 4 H302


A.1/4/Dermal Acute Tox. 4 H312

>= 0.1% - < 0.25% 3,6,9-triazaundecamethylenediamine; tetraethylenepentamine
Index number: 612-060-00-0, CAS: 112-57-2, EC: 203-986-2


A.2/1B Skin Corr. 1B H314


A.4.2/1 Skin Sens. 1 H317


US-HAE/C2 Aquatic Chronic 2 H411


A.1/4/Oral Acute Tox. 4 H302


A.1/4/Dermal Acute Tox. 4 H312

>= 0.1% - < 0.25% Diethylenetriamine
Index number: 612-058-00-X, CAS: 111-40-0, EC: 203-865-4


A.1/4/Oral Acute Tox. 4 H302


A.1/4/Dermal Acute Tox. 4 H312


A.2/1A Skin Corr. 1A H314


A.4.2/1 Skin Sens. 1 H317


A.1/1/Inhal Acute Tox. 1 H330


A.8/3 STOT SE 3 H335

4. FIRST-AID MEASURES

Description of necessary measures

In case of skin contact:

Immediately take off all contaminated clothing.
OBTAIN IMMEDIATE MEDICAL ATTENTION.
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.
Give nothing to eat or drink.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

None

Indication of immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
No particular treatment.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Water.
Carbon dioxide (CO2).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

Hazardous combustion products:

None

Explosive properties: N.A.
Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Wear personal protection equipment.
Remove all sources of ignition.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Provide adequate ventilation.
Remove persons to safety.
Use appropriate respiratory protection.
See protective measures under point 7 and 8.

Methods and materials for containment and cleaning up

Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Do not use on extensive surface areas in premises where there are occupants.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.
Storage temperature:
Store at ambient temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

3,6-diazaoctanethylenediamin;triethylenetetramine - CAS: 112-24-3

- OEL Type: OSHA - TWA: 10 ppm
- OEL Type: ACGIH - TWA: 10 ppm

Diethylenetriamine - CAS: 111-40-0

- OEL Type: ACGIH - TWA(8h): 1 ppm - Notes: Skin - URT and eye irr
- OEL Type: National - TWA: 4 mg/m3, 1 ppm - Notes: Indicative value-France

DNEL Exposure Limit Values

2-(2-aminoethylamino)ethanol;(AEEA) - CAS: 111-41-1

Worker Industry: 3.53 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 8.33 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

N.A.

Appropriate engineering controls:

None

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

None

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Value	Method:	Notes
Appearance and colour:	BROWN LIQUID	--	--
Odour:	N.A.	--	--
Odour threshold:	N.A.	--	--
pH:	N.A.	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	N.A.	--	--
Flash Point (°F):	> 300° F (COC)	--	--
Flash point (°C):	> 149° C (COC)	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	0.972	--	--
Vapour pressure:	3.1	--	--
Vapour density:	2.1	--	--
Relative density:	0.98@20°C/68°F	--	--
Solubility in water:	N.A.	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	426°C / 800°F	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	N.A.	--	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

10. STABILITY AND REACTIVITY

Reactivity
Stable under normal conditions
Chemical stability
Stable under normal conditions
Possibility of hazardous reactions
None

Conditions to avoid
Stable under normal conditions.
Incompatible materials
None in particular.
Hazardous decomposition products
None.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Toxicological information of the product:
N.A.
Toxicological information of the main substances found in the product:
2-(2-aminoethylamino)ethanol;(AEEA) - CAS: 111-41-1
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 1000 mg/kg
Diethylenetriamine - CAS: 111-40-0
a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat < 0.3 mg/l
Test: LD50 - Route: Oral - Species: Rat = 1553 mg/kg

Substance(s) listed on the NTP report on Carcinogens:
None.
Substance(s) listed on the IARC Monographs:
4-Methylimidazole - Group 2B.
Substance(s) listed as OSHA Carcinogen(s):
None.
Substance(s) listed as NIOSH Carcinogen(s):
None.

12. ECOLOGICAL INFORMATION

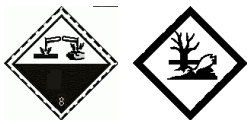
Ecotoxicity
Adopt good working practices, so that the product is not released into the environment.
2-(2-aminoethylamino)ethanol;(AEEA) - CAS: 111-41-1
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 0.35 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia = 0.29 mg/l - Duration h: 48
Diethylenetriamine - CAS: 111-40-0
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 430 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia < 64.6 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae = 1164 mg/l - Duration h: 72
b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Fish > 10 mg/l - Duration h: 672
Endpoint: NOEC - Species: Daphnia = 5.6 mg/l - Duration h: 504
Endpoint: NOEC - Species: Algae = 10 mg/l - Duration h: 72
Persistence and degradability
N.A.
Bioaccumulative potential
N.A.
Mobility in soil
N.A.
Other adverse effects
No harmful effects expected.

13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION



UN number

ADR-UN Number:	2735
DOT number:	UN2735
IATA-UN Number:	2735
IMDG-UN Number:	2735

UN proper shipping name

ADR-Shipping Name:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3,6-diazaoctanethylenediamin;triethylenetetramine)
DOT-Shipping Name:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3,6-diazaoctanethylenediamin;triethylenetetramine)
IATA-Shipping Name:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3,6-diazaoctanethylenediamin;triethylenetetramine)
IMDG-Shipping Name:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3,6-diazaoctanethylenediamin;triethylenetetramine)

Transport hazard class(es)

ADR-Class:	8
DOT Hazard Class:	8
ADR - Hazard identification number:	80
IATA-Class:	8
IATA-Label:	8
IMDG-Class:	8

Packing group

ADR-Packing Group:	II
DOT Packing group:	II
IATA-Packing group:	II
IMDG-Packing group:	II

Environmental hazards

ADR-Enviromental Pollutant:	Yes
IMDG-Marine pollutant:	Marine Pollutant
Most important toxic component:	Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines

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

N.A.

Special precautions

DOT Special provisions:	B2, IB2, T11, TP1, TP27
DOT Labels:	8
ADR-Subsidiary risks:	-
ADR-S.P.:	274
ADR-Transport category (Tunnel restriction code):	2 (E)
IATA-Passenger Aircraft:	851

IATA-Subsidiary risks:	-
IATA-Cargo Aircraft:	855
IATA-S.P.:	A3 A803
IATA-ERG:	8L
IMDG-EmS:	F-A , S-B
IMDG-Subsidiary risks:	-
IMDG-Stowage and handling:	Category A
IMDG-Segregation:	SG35

Q.L.: 1L
Q.E.: E2

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act
TSCA inventory: all the components are listed on the TSCA inventory.
TSCA listed substances:
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines is listed in TSCA Section 8b
3,6-diazaoctanethylenediamin;triethylenetetramine is listed in TSCA Section 8b
2-ethyl-4-methylimidazole is listed in TSCA Section 8b
4-Methylimidazole is listed in TSCA Section 8b
2-(2-aminoethylamino)ethanol;(AEEA) is listed in TSCA Section 8b
2-piperazin-1-ylethylamine is listed in TSCA Section 8b
3,6,9-triazaundecamethylenediamine; tetraethylenepentamine is listed in TSCA Section 8b.

SARA - Superfund Amendments and Reauthorization Act
Section 302 - Extremely Hazardous Substances: no substances listed.
Section 304 - Hazardous substances: no substances listed.
Section 313 - Toxic chemical list: no substances listed.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
No substances listed.

CAA - Clean Air Act
CAA listed substances:
2-(2-aminoethylamino)ethanol;(AEEA) is listed in CAA Section 111
3,6,9-triazaundecamethylenediamine; tetraethylenepentamine is listed in CAA Section 112(b) - HON.

CWA - Clean Water Act
CWA listed substances:
None.

USA - State specific regulations

California Proposition 65
Substance(s) listed under California Proposition 65:
4-Methylimidazole - Listed as carcinogen.

Massachusetts Right to know
Substance(s) listed under Massachusetts Right to know:
3,6-diazaoctanethylenediamin;triethylenetetramine
2-(2-aminoethylamino)ethanol;(AEEA)
2-piperazin-1-ylethylamine
3,6,9-triazaundecamethylenediamine; tetraethylenepentamine.

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:
3,6-diazaoctanethylenediamin;triethylenetetramine
2-(2-aminoethylamino)ethanol;(AEEA)
2-piperazin-1-ylethylamine
3,6,9-triazaundecamethylenediamine; tetraethylenepentamine.

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:
3,6-diazaoctanethylenediamin;triethylenetetramine
2-(2-aminoethylamino)ethanol;(AEEA)
2-piperazin-1-ylethylamine
3,6,9-triazaundecamethylenediamine; tetraethylenepentamine.
The following substance(s) in this product has/have an identification by CAS number either in countries not affected by the REACH regulation or in regulations not yet updated to reflect the new naming convention for hydrocarbon solvents:

16. OTHER INFORMATION

Full text of phrases referred to in Section 3:

H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H312 Harmful in contact with skin.
H412 Harmful to aquatic life with long lasting effects.
H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.
H362 May cause harm to breast-fed children.
H411 Toxic to aquatic life with long lasting effects.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.

Safety Data Sheet dated 9/18/2018, version 3
Disclaimer:
The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.
This Safety Data Sheet cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average