Safety Data Sheet
Amine A 230

Version 1.1 Revision Date: 12/14/2020

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Amine A 230

Recommended use of the chemical and restrictions on use

Recommended use : Industrial chemical

Manufacturer or supplier's details

Company : Univar Solutions México, S. de R.L. de C.V.
Address Av. Xola, número 535, piso 2, Col. Del Valle Norte
Deleg. Benito Juarez CP 03103
Ciudad de México
Mexico

Emergency telephone number:
Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887
SETIQ 800 00 214 00 / 55 55 59 15 88

Additional Information: : Responsible Party: Product Compliance Department
E-Mail: SDSLA@univarsolutions.com
SDS Requests: 55 1107 0170
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	:	Category 3
Acute toxicity (Oral)	:	Category 4
Acute toxicity (Inhalation)	:	Category 4
Acute toxicity (Dermal)	:	Category 4
Skin corrosion	:	Category 1B
Serious eye damage	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)
Short-term (acute) aquatic hazard	:	Category 3
Long-term (chronic) aquatic hazard	:	Category 3

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

This SDS was prepared according to NOM-018-STPS-2015.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
108-01-0	Ethanol, 2-(dimethylamino)-	30 - 50
280-57-9	1,4-Diazabicyclo[2.2.2]octane	10 - 20
3033-62-3	Bis-(N,N-dimethylaminoethyl)ether	10 - 20
1704-62-7	Dimethylaminoethoxyethanol	10 - 20

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

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Wash off with soap and water.
If on clothes, remove clothes.
If skin irritation persists, call a physician.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
Take victim immediately to hospital.

If swallowed : Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed : None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical Water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire-fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon oxides Nitrogen oxides (NOx)
Specific extinguishing methods	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.
Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the ap-

plication area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

Conditions for safe storage : No smoking.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
R73033-62-3	Bis-(N,N-dimethylaminoethyl)ether	TWA	0.05 ppm	ACGIH
R7		STEL	0.15 ppm	ACGIH

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Organic vapour type

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : No data available
Odour : characteristic
Odour Threshold : No data available

pH	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	39 °C (102 °F)
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Thermal decomposition	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Vapours may form explosive mixture with air.
Conditions to avoid	:	Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	:	aluminum Copper galvanized metals isocyanates Oxidizing agents peroxides Strong acids Strong bases Zinc Halogenated hydrocarbon Aluminium

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: 1,281 mg/kg

Acute inhalation toxicity	:	Acute toxicity estimate: 11.89 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	:	Acute toxicity estimate: 1,559 mg/kg

Components:

108-01-0:

Acute oral toxicity	:	LD50 (Rat, male and female): 1,182.7 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion.
Acute inhalation toxicity	:	LC50 (Rat, male): 6 mg/l Exposure time: 4 h Assessment: The component/mixture is toxic after short term inhalation.
Acute dermal toxicity	:	LD50 (Rabbit, male and female): 1,219 mg/kg Assessment: The component/mixture is moderately toxic after single contact with skin.

280-57-9:

Acute oral toxicity	:	LD50 (Rat): 700 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion.
Acute inhalation toxicity	:	LC50 (Rat): > 20.2 mg/l
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg

3033-62-3:

Acute oral toxicity	:	LD50 (Rat): 708 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion.
Acute inhalation toxicity	:	Assessment: The component/mixture is moderately toxic after short term inhalation. Remarks: No data available
Acute dermal toxicity	:	LD50 (Rabbit): 750 mg/kg Assessment: The component/mixture is toxic after single contact with skin.

1704-62-7:

Acute oral toxicity	:	LD50 (Rat): 2,150 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 72 ppm Exposure time: 4 h
Acute dermal toxicity	:	LD50 (Rabbit): 1,260 mg/kg Assessment: The component/mixture is moderately toxic after single contact with skin.

Skin corrosion/irritation

Components:

108-01-0:
Species: Rabbit
Exposure time: 4 h
Result: Causes burns.

280-57-9:
Species: Rabbit
Result: Irritating to skin.

3033-62-3:
Species: Rabbit
Result: Causes burns.

1704-62-7:
Species: Rabbit
Result: Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days.

Serious eye damage/eye irritation

Components:

108-01-0:
Species: Rabbit
Result: Risk of serious damage to eyes.

280-57-9:
Species: Rabbit
Result: Risk of serious damage to eyes.

3033-62-3:
Species: Rabbit
Result: Risk of serious damage to eyes.

1704-62-7:
Species: Rabbit
Result: Risk of serious damage to eyes.

Germ cell mutagenicity

Components:

280-57-9:

Genotoxicity in vitro	:	Test Type: Ames test Species: Salmonella typhimurium Result: negative
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse Result: negative
Germ cell mutagenicity - Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

3033-62-3:

Genotoxicity in vitro	:	Test Type: Ames test Species: Salmonella typhimurium Result: negative
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse Result: negative
Germ cell mutagenicity - Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

1704-62-7:

Genotoxicity in vitro	:	Test Type: Ames test Species: Salmonella typhimurium Result: negative
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse Result: negative
Germ cell mutagenicity - Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:

280-57-9:

Carcinogenicity - Assessment	:	No evidence of carcinogenicity in animal studies.

3033-62-3:

Carcinogenicity - Assessment	:	Carcinogenicity classification not possible from current data.

1704-62-7:

Carcinogenicity - Assessment	:	carcinogenicity classification is not possible

Reproductive toxicity

Components:

280-57-9:

Effects on fertility	:	Test Type: Screening test Species: Rat General Toxicity - Parent: NOAEL: 100 mg/kg body weight General Toxicity F1: NOAEL: 300 mg/kg body weight
Effects on foetal development	:	Species: Rat General Toxicity Maternal: NOAEL: 300 mg/kg body weight
Teratogenicity - Assessment	:	No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

3033-62-3:

Reproductive toxicity - Assessment		Fertility classification not possible from current data.
Teratogenicity - Assessment	:	Embryotoxicity classification not possible from current data.

1704-62-7:

Reproductive toxicity - Assessment		reproduction classification is not possible
Teratogenicity - Assessment	:	teratogenicity classification is not possible

STOT - single exposure

Components:

108-01-0:

Target Organs: Respiratory system
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

108-01-0:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 98.37 mg/l Exposure time: 48 h Test Type: static test
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): 66.08 mg/l Exposure time: 72 h Test Type: static test
Acute aquatic toxicity- Assessment	:	Harmful to aquatic life.

280-57-9:

Toxicity to fish	:	LC0 (Cyprinus carpio (Carp)): > 100 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	NOEC (Daphnia magna (Water flea)): 92 mg/l Exposure time: 48 h
Toxicity to algae	:	Remarks: No data available

3033-62-3:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 131.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 102 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 4 mg/l Exposure time: 72 h
Acute aquatic toxicity- Assessment	:	Toxic to aquatic life.
Chronic aquatic toxicity- Assessment	:	Toxic to aquatic life with long lasting effects.

1704-62-7:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 320 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 160 mg/l Exposure time: 72 h

Persistence and degradability

Components:

108-01-0:

Biodegradability	:	Result: Readily biodegradable.

Bioaccumulative potential

Components:

280-57-9:

Partition coefficient: n-octanol/water	:	log Pow: -1.16 (20 °C) pH: 7

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-909-4897
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):
UN2920, Corrosive liquids, flammable, n.o.s., (2-DIMETHYLAMINOETHANOL, 1,4-DIAZABICYCLO[2.2.2]OCTANE), 8 (3), II

MX-DG (Mexico Road Transportation):
UN2920, CORROSIVE LIQUID, FLAMMABLE, N.O.S., (2-DIMETHYLAMINOETHANOL, 1,4-DIAZABICYCLO[2.2.2]OCTANE), 8 (3), II

IATA (International Air Transport Association):
UN2920, CORROSIVE LIQUID, FLAMMABLE, N.O.S., (2-DIMETHYLAMINOETHANOL, 1,4-DIAZABICYCLO[2.2.2]OCTANE) , 8 (3), II, Flash Point:39 °C(102 °F)

IMDG (International Maritime Dangerous Goods):
UN2920, CORROSIVE LIQUID, FLAMMABLE, N.O.S., (2-DIMETHYLAMINOETHANOL, 1,4-DIAZABICYCLO[2.2.2]OCTANE), 8, (3), II

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

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

TSCA	:	On TSCA Inventory
DSL	:	This product contains one or several components that are not on the Canadian DSL nor NDSL.
AICS	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory

ENCS	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory

SECTION16. OTHER INFORMATION

Further information

Other information : The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (55 1107 0170) SDSLA@univarsolutions.com.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concen-	NOAEL	No Observable

	tration		Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philipines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Compositon, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50		Lethal Concentration 50%	