

Safety Data Sheet

JEFFCAT® Z-65P

Version 1.3

Revision Date: 02/10/2025

SECTION 1. IDENTIFICATION

Product name : JEFFCAT® Z-65P

Synonyms : No data available

Recommended use of the chemical and restrictions on use

Recommended use : Catalyst.

Restricted Uses : For industrial use only.

Supplier or Repackaging Details

Company : Univar Solutions Canada Ltd.
Address : 64 Arrow Road
 North York, ON, M9M 2L9
 Canada

Manufactured By : Huntsman International LLC

Emergency telephone number:

Local Emergency Contact : During Office hours Monday-Friday, 8.00 am - 4.30 pm (Pacific Standard Time) : 1-866-686-4827

Additional Information: : Responsible Party: Product Compliance Department
 E-mail: SDSNA@univarsolutions.com
 SDS Requests: 1-855-429-2661
 Website: www.univarsolutions.com

SECTION 2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

Flammable liquids : Category 3

Skin corrosion : Category 1B

Serious eye damage : Category 1

Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
 H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting equipment.

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P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
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 to extinguish.

Storage:

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

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 40 %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	% by Weight	Synonyms
280-57-9	1,4-Diazabicyclo[2.2.2]octane	10 - 30	1,4-Diazabicyclo[2.2.2]octane
3033-62-3	Bis-(N,N-dimethylaminoethyl)ether	10 - 30	Tetramethyl bis(aminoethyl) ether

Actual concentration or concentration range is withheld as a trade secret

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.

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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. If on skin, rinse well with water. If on clothes, remove clothes.
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. 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.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Alcohol-resistant foam Carbon dioxide (CO ₂) Dry chemical Water mist
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	: No hazardous combustion products are known
Further information	: 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 containers. 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 measures	: Use personal protective equipment. Remove all sources of ignition.
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agency procedures	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	: Neutralise with acid. 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 contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application 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.
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
280-57-9	1,4-Diazabicyclo[2.2.2]octane	TWA	1 ppm 4.6 mg/m3	CA ON OEL
3033-62-3	Bis-(N,N-	STEL	0.15 ppm	CA AB OEL

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	dimethylaminoethyl)ether		0.98 mg/m3	
		TWA	0.05 ppm	CA AB OEL
			0.3 mg/m3	
		TWA	0.05 ppm	CA BC OEL
		STEL	0.15 ppm	CA BC OEL

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

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.

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : No data available
Odour : amine-like
Odour Threshold : No data available
pH : 11.44
Freezing Point (Melting point/range) : -53 °C (-63 °F)
Boiling Point : No data available
Flash point : 40.5 °C (104.9 °F)
Method: closed cup

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 : 0.96 @ 25 °C (77 °F)
Reference substance: (water = 1)

Density : 0.96 g/cm3 @ 25 °C (77 °F)

Water solubility : No data available
Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available

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Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: 9 mm ² /s @ 40 °C (104 °F)

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	: Acids aluminum Copper galvanized metals halogens peroxides Strong oxidizing agents

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Components:****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.

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Skin corrosion/irritation**Components:****280-57-9:**

Species: Rabbit

Result: Irritating to skin.

3033-62-3:

Species: Rabbit

Result: Causes burns.

Serious eye damage/eye irritation**Components:****280-57-9:**

Species: Rabbit

Result: Risk of serious damage to eyes.

3033-62-3:

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.

Carcinogenicity**Components:****280-57-9:**

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Carcinogenicity - Assessment	: No evidence of carcinogenicity in animal studies.
3033-62-3:	
Carcinogenicity - Assessment	: Carcinogenicity classification not possible from current data.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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
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Effects on foetal development	: Species: Rat General Toxicity Maternal: NOAEL: 300 mg/kg body weight
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Teratogenicity - Assessment	: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.
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3033-62-3:

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

Product:

Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Acute aquatic toxicity- Assessment	: This product has no known ecotoxicological effects.
Chronic aquatic toxicity- Assessment	: This product has no known ecotoxicological effects.

Components:

280-57-9:

Toxicity to fish	: LC0 (Cyprinus carpio (Carp)): > 100 mg/l
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	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.

Persistence and degradability

No data available

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 : No data available

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: 1-800-637-7922
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

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Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

TDG (Transportation of Dangerous Goods):

UN2734, AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S., (BIS-(N,N-DIMETHYLAMINOETHYL)ETHER, 1,4-DIMETHYLPIPERAZINE), 8 (3), II

IATA (International Air Transport Association):

UN2734, AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S., (BIS-(N,N-DIMETHYLAMINOETHYL)ETHER, 1,4-DIMETHYLPIPERAZINE), 8 (3), II

IMDG (International Maritime Dangerous Goods):

UN2734, AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S., (BIS-(N,N-DIMETHYLAMINOETHYL)ETHER, 1,4-DIMETHYLPIPERAZINE), 8, (3), II, Flash Point: 40.5 °C (104.9 °F)

SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

NPRI Components : 75-56-9

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

TSCA	: All substances listed as active on the TSCA inventory
DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: not determined
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

SECTION 16. 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

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been prepared by Univar Solutions EHS Product Compliance Department (1-855-429-2661)
SDSNA@univarsolutions.com.

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Material number:
16167220, 16167138

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 Concentration	NOAEL	No Observable 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	Philippines 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 Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50			Lethal Concentration 50%