

**Safety Data Sheet**  
**Jeffcat® ZR 70**

Version 1.2

Revision Date: 11/05/2022

**SECTION 1. IDENTIFICATION****Product name** : Jeffcat® ZR 70

Synonyms : ZR70

**Recommended use of the chemical and restrictions on use**

Recommended use : Catalyst.

Restricted Uses : No data available

**Manufacturer or supplier's details****Company** : Univar Solutions Canada Ltd.  
**Address** : 64 Arrow Road  
North York, ON, M9M 2L9  
Canada**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 4

Acute toxicity (Oral) : Category 1

Skin corrosion : Category 1C

Serious eye damage : Category 1

**Label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H227 Combustible liquid.  
H300 Fatal if swallowed.  
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.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

## Safety Data Sheet

### Jeffcat® ZR 70

Version 1.2

Revision Date: 11/05/2022

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.

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 Store in a well-ventilated place.

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: 100 %

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

**Hazardous components**

CAS-No.	Chemical name	% by Weight	Synonyms
1704-62-7	Dimethylaminoethoxyethanol	90 - 100	2-[2-(dimethylamino)ethoxy]ethanol

No hazardous ingredients

### 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

## Safety Data Sheet

### Jeffcat® ZR 70

Version 1.2

Revision Date: 11/05/2022

	wounds from corrosion of the skin heal slowly and with difficulty. Take victim immediately to hospital. 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	: 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	: Water spray Alcohol-resistant foam Carbon dioxide (CO <sub>2</sub> ) Dry chemical
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 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.
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

## Safety Data Sheet

### Jeffcat® ZR 70

Version 1.2

Revision Date: 11/05/2022

- 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).  
Keep in suitable, closed containers for disposal.

#### SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material. 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.  
Provide sufficient air exchange and/or exhaust in work rooms.  
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.  
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

Contains no substances with occupational exposure limit values.

##### Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.  
In the case of vapour formation use a respirator with an approved filter.
- 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.

**Safety Data Sheet**  
**Jeffcat® ZR 70**

Version 1.2

Revision Date: 11/05/2022

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 : clear  
Odour : faint  
Odour Threshold : No data available  
pH : 10.9 @ 10 g/l  
Freezing Point (Freezing Point) : < -20 °C (-4 °F)  
Method: OECD Test Guideline 102

Boiling Point (Boiling point/boiling range) : 203.5 °C (398.3 °F)  
(1,013 hPa)

Flash point : 90 °C (194 °F)  
Method: Pensky-Martens closed cup

Evaporation rate : No data available  
Flammability (solid, gas) : No data available  
Upper explosion limit : 14.2 %(V)

Lower explosion limit : 0.9 %(V)

Vapour pressure : 0.11 hPa @ 20 °C (68 °F)

Relative vapour density : 1  
Relative density : 0.95 @ 20 °C (68 °F)  
Method: OECD Test Guideline 109

Density : 0.95 g/cm<sup>3</sup>  
Solubility(ies)  
Water solubility : 100 g/l completely miscible @ 20 °C (68 °F)  
Method: OECD Test Guideline 105

Solubility in other solvents : No data available  
Partition coefficient: n-octanol/water : log Pow: -0.778 @ 20 °C (68 °F)  
Method: OECD Test Guideline 107

Auto-ignition temperature : 205 °C  
Thermal decomposition : No data available  
Viscosity  
Viscosity, kinematic : 11.7 mm<sup>2</sup>/s @ 20 °C (68 °F)  
Method: OECD Test Guideline 114

**SECTION 10. STABILITY AND REACTIVITY**

**Safety Data Sheet**  
**Jeffcat® ZR 70**

Version 1.2

Revision Date: 11/05/2022

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	: Oxidizing agents

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Components:****1704-62-7:**

Acute oral toxicity : LD50 (Rat): 2,150 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 72 ppm  
Exposure time: 4 hAcute dermal toxicity : LD50 (Rabbit): 1,260 mg/kg  
Assessment: The component/mixture is moderately toxic after single contact with skin.**Skin corrosion/irritation****Components:****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:****1704-62-7:**

Species: Rabbit

Result: Risk of serious damage to eyes.

**Germ cell mutagenicity****Components:****1704-62-7:**Genotoxicity in vitro : Test Type: Ames test  
Species: Salmonella typhimurium  
Result: negativeGenotoxicity in vivo : Test Type: In vivo micronucleus test  
Species: Mouse  
Result: negative

**Safety Data Sheet**  
**Jeffcat® ZR 70**

Version 1.2

Revision Date: 11/05/2022

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

**Carcinogenicity****Components:****1704-62-7:**

Carcinogenicity - Assessment : carcinogenicity classification is not possible

**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:****1704-62-7:**

Reproductive toxicity - Assessment : reproduction classification is not possible

Teratogenicity - Assessment : teratogenicity classification is not possible

**Further information****Product:**

Remarks: No data available

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

No data available

**Bioaccumulative potential**

No data available

**Safety Data Sheet**  
**Jeffcat® ZR 70**

Version 1.2

Revision Date: 11/05/2022

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

**SECTION 14. TRANSPORT INFORMATION****TDG (Transportation of Dangerous Goods):**

UN2735, AMINES, LIQUID, CORROSIVE, N.O.S., (DIMETHYLAMINOETHOXYETHANOL), 8, III

**IATA (International Air Transport Association):**

UN2735, AMINES, LIQUID, CORROSIVE, N.O.S., (DIMETHYLAMINOETHOXYETHANOL), 8, III

**IMDG (International Maritime Dangerous Goods):**

UN2735, AMINES, LIQUID, CORROSIVE, N.O.S., (DIMETHYLAMINOETHOXYETHANOL), 8, III, Flash Point:90 °C(194 °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** : 107-21-1**The components of this product are reported in the following inventories:**

- TSCA : On TSCA Inventory
- DSL : All components of this product are on the Canadian DSL
- AICS : On the inventory, or in compliance with the inventory

## Safety Data Sheet

### Jeffcat® ZR 70

Version 1.2

Revision Date: 11/05/2022

NZIoC	: On the inventory, or in compliance with the inventory
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 been prepared by Univar Solutions EHS Product Compliance Department (1-855-429-2661) [SDSNA@univarsolutions.com](mailto:SDSNA@univarsolutions.com).

**Revision Date** : 11/05/2022

**Material number:**  
16173215, 16078621

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.

**Safety Data Sheet**  
**Jeffcat® ZR 70**

Version 1.2

Revision Date: 11/05/2022

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%		