SAFETY DATA SHEET



This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Revision date 10/31/2023 Revision Number 5 1. Identification Product identifier **Product Name** ZERUST® Axxanol[™] Spray-G Other means of identification 350-M-00023DR, 350-M-00023GL, 350-M-00023KG, 350-M-00023PL, Product Code(s) 350-M-00023QT Synonyms None Recommended use of the chemical and restrictions on use **Recommended use** Restricted to professional users **Restrictions on use** No information available Details of the supplier of the safety data sheet **Manufacturer Address** Northern Technologies International Corporation 4201 Woodland Rd Circle Pines, MN 55014 - United States 1-763-225-6600 sds@ntic.com E-mail Emergency telephone number Carechem +1 202 464 2554; Outside US/Canada +44 1865 407333 (24 hours; 7 **Emergency Telephone** days/week)

2. Hazard(s) identification

Classification

Flammable liquids

Hazards not otherwise classified (HNOC) Not applicable

<u>Label elements</u> Warning

Hazard statements Combustible liquid Category 4

Appearance Liquid

Physical state Liquid

Odor Characteristic

Precautionary Statements - Prevention

Keep away from flames and hot surfaces. - No smoking Wear protective gloves/eye protection/face protection

Precautionary Statements - Response

In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown acute toxicity

Other information

May be harmful in contact with skin.

3. Composition/information on ingredients

Pure substance/mixture

Mixture

Chemical name	CAS No.	Weight-%	Trade secret
Distillates, petroleum, solvent-dewaxed heavy	64742-65-0	40 - 50%	* **
paraffinic			
Distillates (petroleum), hydrotreated light	64742-47-8	30 - 40%	*
Distillates, petroleum, hydrotreated light naphthenic	64742-53-6	0 - 10%	* **
Amines, C12-14-alkyl, C6-10-alkyl phosphates	68603-55-4	1 - 5%	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

**Note L: The classification as a carcinogen does not apply as the substance contains less than 3 % DMSO extract as measured by IP 346.

4. First-aid measures

Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Rinse mouth.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.	
Effects of Exposure	No information available.	
Indication of any immediate medical attention and special treatment needed		

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Large Fire	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient.	
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.	
Specific hazards arising from the chemical	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.	
Explosion data Sensitivity to mechanical impact None.		
Sensitivity to static discharge	Yes.	
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See
	section 8 for more information. Take precautionary measures against static discharges. Do
	not touch or walk through spilled material.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Distillates, petroleum, solvent-dewaxed	TWA: 5 mg/m ³ inhalable	TWA: 5 mg/m ³	IDLH: 2500 mg/m ³
heavy paraffinic	particulate matter excluding	(vacated) TWA: 5 mg/m ³	TWA: 5 mg/m ³
64742-65-0	metal working fluids, highly &	-	STEL: 10 mg/m ³
	severely refined		

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, suc	ch as personal protective equipment
Eye/face protection	Tight sealing safety goggles.
Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

d chemical properties	
Liquid	
Liquid	
light brown	
Characteristic	
No data available	
Values	Remarks • Method
No data available	None known
	None known
No data available	None known
	Liquid Liquid light brown Characteristic No data available <u>Values</u>

Initial boiling point and boiling rang Flash point Evaporation rate Flammability Flammability Limit in Air Upper flammability or explosive limits Lower flammability or explosive	je No data available 80.5 °C / 176.9 °F No data available No data available No data available No data available	None known None known None known None known None known
limits Vapor pressure Relative vapor density Relative density Water solubility Solubility(ies) Partition coefficient Autoignition temperature Decomposition temperature Kinematic viscosity Dynamic viscosity	No data available No data available No data available No data available No data available No data available No data available	None known None known None known None known None known None known None known None known
Other information Explosive properties Oxidizing properties Softening point Molecular weight VOC content Liquid Density Bulk density	No information available No information available No information available No information available No information available No information available No information available	

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Based on available data, the classification criteria are not met.	
Eye contact	Based on available data, the classification criteria are not met.	
Skin contact	Based on available data, the classification criteria are not met.	
Ingestion	Based on available data, the classification criteria are not met.	
Symptoms related to the physical, chemical and toxicological characteristics		
Symptoms	Based on available data, the classification criteria are not met.	

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	13,888.90 mg/kg
ATEmix (dermal)	2,898.60 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l

Unknown acute toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Distillates, petroleum, solvent-dewaxed heavy paraffinic 64742-65-0	> 15000 mg/kg (Rat)	>5000 mg/kg (Rabbit)	> 2400 mg/m³ (Rat)4 h
Distillates (petroleum), hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	>5.2 mg/L (Rat)4 h
Distillates, petroleum, hydrotreated light naphthenic 64742-53-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 2180 mg/m³ (Rat)4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT - single exposure	Based on available data, the classification criteria are not met.
STOT - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Other adverse effects	No information available.
Interactive effects	Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicity

Based on available data, the classification criteria are not met.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Distillates, petroleum, solvent-dewaxed heavy paraffinic 64742-65-0	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Distillates (petroleum), hydrotreated light 64742-47-8	-	LC50: =45mg/L (96h, Pimephales promelas) LC50: =2.2mg/L (96h, Lepomis macrochirus) LC50: =2.4mg/L (96h, Oncorhynchus mykiss)	-	-
Distillates, petroleum, hydrotreated light naphthenic 64742-53-6	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)

Persistence and degradability

No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Amines, C12-14-alkyl, C6-10-alkyl phosphates	2.47
68603-55-4	

Other adverse effects

No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. Transport information

DOT

Not regulated

IATA	Not regulated
IMDG	Not regulated

15. Regulatory information

International Inventories

TSCA

Complies.

Chemical name	CAS No.	US TSCA Inventory listing	US TSCA inactive/active designation
Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0	Present	Active
Distillates (petroleum), hydrotreated light	64742-47-8	Present	Active
Distillates, petroleum, hydrotreated light naphthenic	64742-53-6	Present	Active
Amines, C12-14-alkyl, C6-10-alkyl phosphates	68603-55-4	Present	Active

DSL/NDSL	Complies.
EINECS/ELINCS	Complies.
ENCS	Complies.
IECSC	Complies.
KECL	Complies.
PICCS	Complies.
AIIC	Complies.
NZIOC	Complies.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level

pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Distillates, petroleum, solvent-dewaxed heavy paraffinic 64742-65-0	Х	Х	Х
Distillates, petroleum, hydrotreated light naphthenic 64742-53-6	-	Х	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information				
NFPA HMIS Chronic Hazard Star Le	Health hazards 1	Flammability 2 Flammability 2 alth Hazard	Instability 0 Physical hazards 0	Special hazards - Personal protection X
Legend Section 8: TWA	breviations and acronyms use Exposure controls/personal p WA (time-weighted average) Maximum limit value		<u>heet</u> STEL (Short Tern Skin designation	n Exposure Limit)
Agency for Toxic Sul U.S. Environmental European Food Safe EPA (Environmental Acute Exposure Guid U.S. Environmental U.S. Environmental Food Research Jour Hazardous Substand International Uniform National Institute of Australia National Ins NIOSH (National Ins National Library of M National Library of M National Toxicology New Zealand's Cher Organization for Eco	Protection Agency) deline Level(s) (AEGL(s)) Protection Agency Federal Insec Protection Agency High Production nal ce Database Technology and Evaluation Database Technology and Evaluation (NITE dustrial Chemicals Notification and titute for Occupational Safety and ledicine's ChemID Plus (NLM CII ledicine's PubMed database (NL Program (NTP) nical Classification and Information nomic Co-operation and Develop nomic Co-operation and Develop	ATSDR) atabase ticide, Fungicide, and F on Volume Chemicals e (IUCLID) E) nd Assessment Scheme d Health) P) M PUBMED) on Database (CCID) pment Environment, He pment High Production	Rodenticide Act e (NICNAS) ealth, and Safety Publication Volume Chemicals Program	
Revision date	10/31/2023			

Revision Note Disclaimer No information available.

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.

End of Safety Data Sheet