

ZNT Boost (Liquid)TM

Chemical Safety Data Sheet

The SDS is prepared in accordance with GB/T 16483 & GB/T 17519

Date of issue: 06/23/2015

Version: 1.0

SDS Ref: Zyvex_ZNT

SECTION 1:

Product identifier

Product form : Substance
Trade name : ZNT Boost (Liquid)TM

Details of the supplier of the safety data sheet

Zyvex Technologies
1255 Kinnear Road
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cballard@zyvextech.com

Emergency telephone number

Chemtrec (North America): 800.424.9300 Chemtrec (International): 703.527.3887
CHEMTREC (24 HOURS)

Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : epoxy resin and amine curing agent

SECTION 2:

Emergency Overview

Black viscous liquid
May cause an allergic skin reaction.
No particular fire or explosion hazard.
No ecotoxicological data about this product are known.

Classification of the substance or mixture

Skin Sens. 1 H317

Full text of H-phrases: see section 16

Label elements

Hazard pictograms



GHS07

Signal word : Warning
Hazard statements : H317 - May cause an allergic skin reaction
Precautionary statements : P261 - Avoid breathing spray, vapors
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear eye protection, protective clothing, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of water
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

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Physical Chemical Hazard

Fire hazard : No particular fire or explosion hazard.
Stable at ambient temperature and under normal conditions of use.

Health Hazard

Potential Adverse human health effects and symptoms : May cause an allergic skin reaction.

Environmental Hazard

No ecotoxicological data about this product are known.

SECTION 3: Composition/information on ingredients

Substance

Substance type : Mono-constituent
Name : ZNT Boost (Liquid)™

Name	Product identifier	%	Classification according to GHS
Proprietary Resin-Polymer Mixture		< 97	Skin Sens. 1, H317
Kentera Functionalized Carbon Nanotubes	PMN 13-0573 PMN-P-09-188	< 4	Not classified

Full text of H- phrases: see section 16

Mixture

Not applicable

SECTION 4: First aid measures

Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Get immediate medical advice/attention.
First-aid measures after skin contact : Gently wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : None under normal use.
Symptoms/injuries after skin contact : May cause an allergic skin reaction.
Symptoms/injuries after eye contact : May cause slight irritation.

Advice for the rescuer

Avoid contact with skin and eyes. Wear suitable gloves. Nitrile rubber. Use splash goggles when eye contact due to splashing is possible.

Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media : alcohol resistant foam. Carbon dioxide. Water spray.
Unsuitable extinguishing media : Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Fire hazard : No particular fire or explosion hazard.

Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures : Avoid all unnecessary exposure. Avoid contact with skin and eyes. Evacuate unnecessary personnel.

For emergency responders

Protective equipment : Avoid contact with skin and eyes. Wear suitable gloves. Nitrile rubber. Use splash goggles when eye contact due to splashing is possible.

Emergency procedures : Avoid contact with skin and eyes. Evacuate unnecessary personnel. Stop leak if safe to do so. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Impound and recover large spill by mixing it with inert granular solids.

Environmental precautions

Do not discharge into drains or the environment.

Methods and material for containment and cleaning up

Methods for cleaning up : Take up in non-combustible absorbent material and shove into container for disposal.

Reference to other sections

Sections 7 and 8

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep only in original container. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

Incompatible products : Strong acids. Strong bases. Strong oxidizing agents.

SECTION 8: Exposure controls/personal protection

Control parameters

No additional information available

Exposure controls

Appropriate engineering controls : Avoid creating mist or spray. Provide adequate general and local exhaust ventilation.

Personal Protective Equipment

Hand protection : nitrile rubber gloves.

Eye protection : Chemical goggles or safety glasses. In case of splashing or aerosol production: protective goggles.

Skin and body protection : Long sleeved protective clothing.

Respiratory protection : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Black viscous liquid.

Color : Black.

Odor : slight.

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

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Freezing point	: No data available
Boiling point	: 210 - 215 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Negligible.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

Other information

No additional information available

SECTION 10: Stability and reactivity

Chemical stability

Stable at ambient temperature and under normal conditions of use.

Reactivity

Incompatible materials.

Conditions to avoid

Exposure to extremely high temperatures.

Incompatible materials

Strong oxidizing agents. Strong mineral acids. Strong bases.

Hazardous decomposition products

Carbon oxides

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity	: Not classified.
Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

Toxicity

Ecology - general : No ecotoxicological data about this product are known.

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Persistence and degradability

ZNT Boost (Liquid)™	
Persistence and degradability	Not readily biodegradable.

Bioaccumulative potential

No additional information available

Mobility in soil

No additional information available

Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal

Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

UN number

Not considered a dangerous good for transport regulations

UN proper shipping name

Not applicable

Transport hazard class(es)

Not applicable

Packing group

Not applicable

Environmental hazards

Other information : No supplementary information available.

Special precautions for user

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

Inland waterway transport

Carriage prohibited (ADN) : No

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

Not applicable

SECTION 15: Regulatory information

National regulations

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

GB/T 16483	Safety data sheet for chemical products – Content and order of sections
GB 30000.21	Safety rules for classification precautionary labelling and precautionary statements of chemicals, Respiratory or skin sensitization
GBZ 2.1	Occupational exposure limits for hazardous agents in the workplace Part 1: Chemical hazardous agents

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SECTION 16: Other information

Indication of changes : Original Document.

Data sources : China GB T 16483:2008.
China GB/T 17519-2013.
China GBZ 2.1-2007 Occupational exposure limits for hazardous agents in the workplace:
Chemical hazardous agents.
Component Supplier SDSs.
Internal Company test data.

Abbreviations and acronyms : ATE: Acute Toxicity Estimate.
CAS (Chemical Abstracts Service) number.
EC50: Environmental Concentration associated with a response by 50% of the test population.
GBT: Chinese national standard.
GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
LD50: Lethal Dose for 50% of the test population.
SDS: Safety Data Sheet.

Full text of H- phrases:

Skin Sens. 1	Skin sensitization Category 1
H317	May cause an allergic skin reaction

Redstone China GHS 2013

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product