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Section 1: Identification

1.1 Product identifier:
Leasys® 5531

1.2 Recommended use:
Identified uses: Polyurethane (PU) dispersion for use in manufacture of PU leather, PVC leather and real leather finishing.

Restrictions on use: Industrial uses only.

1.3 Supplier:
Wanhua Chemical (America) Co., Ltd.
3803 West Chester Pike, Suite 240
Newtown Square, PA 19073
Customer service telephone: 610-566-5297 Telephone in Canada: 613-796-1606
www.whchem.com

1.4 Emergency telephone number:
North America: Chemtrec 800-424-9300 (domestic)
+1-703-527-3887 (international, collect calls accepted)
Europe: +31 20 20 65132/65130 (08:30-17:30) +44 780 183 7343

Section 2: Hazard Identification

2.1 Classification:
Classified according to US Hazard Communication Standard (HCS 2012) and Canada Hazardous Products Regulations (WHMIS 2015).

Not classified in any hazard class.

2.2 Label elements:
Not applicable, not classified in any GHS hazard class.

2.3 Other hazards:
Not available

Section 3: Composition/Information on Ingredients

Chemical Name	CAS RN®	Wt.%	GHS Classification
Non-hazardous Polyurethane resin	Not available	34 - 36	Not classified
Water	7723-18-5	64 - 66	Not classified

Section 4: First-aid Measures

4.1 Description of first-aid measures:
Inhalation: Remove source of exposure or move to fresh air. Get medical advice if you feel unwell or are concerned.

Skin contact: Wash with plenty of water and mild soap. If skin irritation occurs get medical advice.

Eye contact: Rinse cautiously with water or neutral saline eyewash for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

Ingestion: Call a Poison Centre or doctor if you feel unwell or are concerned.

4.2 Most important symptoms and effects, both acute and delayed:
Inhalation: Symptoms of exposure to high concentrations of fumes from heating or spraying may include coughing, dry throat and irritation of the upper respiratory tract.

Skin contact: Prolonged or repeated skin contact may cause mild irritation.

Eye Contact: Contact with the liquid resin may cause mild, temporary eye irritation. Symptoms include redness, pain, tears.

Ingestion: Swallowing may cause nausea, vomiting and diarrhea.

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4.3 Indication of any immediate medical attention and special treatment needed:
None known

Section 5: Fire-fighting Measures

5.1 Extinguishing media:
Water fog or fine spray, alcohol-resistant foam, carbon dioxide or dry chemical (BC powder).
Use water spray to cool fire-exposed containers.

Unsuitable extinguishing media: High pressure water streams may scatter hot molten polymer and spread the fire.

5.2 Special hazards arising from the chemical:
Product may burn if involved in a fire, once the water has evaporated.
Combustion products may include toxic carbon monoxide, hydrogen cyanide, nitrogen oxides and carbon dioxide.
If involved in a fire, closed containers may rupture.

5.3 Special protective equipment and precautions for firefighters:
As for any fire, evacuate the area and fight the fire from a safe distance. Firefighters must wear full protective equipment including self-contained breathing apparatus with chemical protection clothing when firefighters are exposed to decomposition products from this material.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate the area; keep all unprotected people away from the spill area. Ventilate the area.
Wear protective gloves or protective clothing and eye protection or face protection (See Section 8).
Ensure clean-up is conducted by trained personnel only.
Isolate spill area, preventing entry by unauthorized persons.
Do not touch or walk through the spilled material. Spilled material may pose a slipping hazard.
Do not release to drains, risk of blockage from solidified polymer material.

6.2 Environmental precautions:
Avoid releases to the environment and prevent material from entering confined areas, domestic sewers, natural waterways, or storm water management systems.

6.3 Methods and material for containment and cleaning up:
Stop the spill if it is safe to do so. Contain the spill with earth, sand or other suitable non-combustible absorbent.
Clean up spills immediately.

Small spills: Cover spilled liquid with a non-combustible absorbent (eg. sand, diatomaceous earth, universal binding agent). Scoop up spilled product and any contaminated absorbents into appropriate, labeled containers. Contaminated absorbent may pose the same hazards as the spilled product.

Large liquid spills: Pump spilled liquid into suitable containers.

Flush the area with water and collect wash-water for proper disposal.

6.4 Reference to other sections:
See Section 8 for information on selection of personal protective equipment.
See Section 13 for information on disposal of spilled product and contaminated absorbents.

Section 7: Handling and Storage

7.1 Precautions for safe handling:
Wear eye protection, protective gloves, clothing and other equipment required for the workplace.
Wash hands and exposed skin thoroughly, immediately after exposure to product and at the end of the work-shift.
Do not breathe fumes or spray.
Avoid contact with eyes.
Do not eat, drink or smoke while handling this product.

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7.2 Conditions for safe storage:

Store at temperatures between 5-35°C. Protect from freezing.
Storage below 5°C will cause product to solidify irreversibly.
Storage above 35°C may result in the formation of a non-redispersible polymer film.
Keep containers tightly closed when not in use.
Store in original container.
Store in a well-ventilated place protected from direct sunlight. Store away heat and ignition sources.
Store away from food and feedstuffs.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters:

Occupational Exposure Limits: Consult local authorities for acceptable exposure limits.

Ingredient	ACGIH® TLV®	U.S. OSHA PEL	Other Exposure Limits
Polyurethane resin	Not established	Not established	Not established

8.2 Exposure controls:

Exposure control measures: Facilities utilizing or storing this material should be equipped with good general ventilation or local exhaust ventilation, eyewash facilities and a safety shower. Local exhaust ventilation may be required for operations involving heating or spraying.

8.3 Individual protection measures:

Eye/Face protection: Wear safety glasses or chemical safety goggles. Wear a face-shield or full-face respirator when needed to prevent exposure to fumes.

Skin protection: Wear chemical protective gloves.
Wear clean, body-covering, protective coveralls to prevent skin exposure.
Resistance of specific materials can vary from product to product; evaluate resistance under conditions of use and maintain clothing carefully. Contact safety supplier for specifications.

Respiratory protection: If vapor or fume concentrations in air exceed any occupational exposure limits, then wear respiratory protection. Respiratory protection may be necessary if the product is heated to release fume or if a mist is created. If airborne fume or mist exposure is likely wear an approved, chemical cartridge respirator with cartridges to protect against organic vapor (e.g. NIOSH air-purifying respirator).

A respiratory protection program that meets the regulatory requirement, such as OSHA's 29 CFR 1910.134 or Canadian Standards Association (CSA) Standard Z94.4, must be followed whenever workplace conditions warrant a respirator's use.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:	
Appearance:	Liquid. Translucent.
Odor:	Not available. Faint odor.
Odor threshold:	Not available
pH:	7.0 – 9.0
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	Not available
Evaporation rate:	Not available
Flammability:	Not available
Upper/lower flammability or explosive limits:	Not available
Evaporation rate:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	1.02 – 1.09 (water = 1)
Solubility (ies):	Miscible in water
Partition coefficient (n-octanol/water):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	20 - 300
Viscosity:	300 – 1200 mPa.s @ 25°C (dynamic)

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Section 10: Stability and Reactivity

10.1 Reactivity:
Not reactive.

10.2 Chemical stability:
Stable under recommended conditions of handling and storage.

10.3 Possibility of hazardous reactions:
Not available

10.4 Conditions to avoid:
Avoid high temperatures (≥35°C) and freezing (≤5°C).

10.5 Incompatible materials:
Not available

10.6 Hazardous decomposition products:
Thermal decomposition may produce irritating fumes.

Section 11: Toxicological Information

11.1 Likely routes of exposure:
Inhalation of aerosols. Ingestion, skin contact, eye contact.

11.2 Information on acute health effects:

Inhalation: Data not available.

Skin: Data not available.

Ingestion: Data not available

Skin corrosion / irritation
Data not available.

Serious eye damage / irritation
Data not available.

Acute Toxicity Data

Ingredient	LD_{50} Oral	LD_{50} Dermal	LC_{50} Inhalation 4-hour
Polyurethane resin	Not available	Not available	Not available

STOT (Specific Target Organ Toxicity) – Single exposure
Data not available. Breathing aerosols may cause irritation to the respiratory tract.

Aspiration hazard
Data not available.

11.3 Information on delayed and chronic health effects:

STOT (Specific Target Organ Toxicity) – Repeated exposure
Data not available.

Sensitization - respiratory and/or skin
Data not available

Carcinogenicity
No ingredients of this product have been evaluated for carcinogenicity by the International Agency for Research on Cancer (IARC), the American Conference of Governmental Industrial Hygienists (ACGIH®), OSHA (Occupational Safety and Health Administration) or the US National Toxicology Program (NTP).

Reproductive toxicity
Data not available

Germ cell mutagenicity
Data not available

Interactive effects
Data not available

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Section 12: Ecological Information

12.1 Toxicity:
Data not available.

12.2 Persistence and degradability:
Data not available.

12.3 Bioaccumulative potential:
log K_{ow} = -1.38, low potential for bioaccumulation

12.4 Mobility in soil:
Low mobility in soil.

Section 13: Disposal Considerations

13.1 Disposal methods:
Do NOT discard into any sewers, on the ground or into any body of water.
Store material for disposal as indicated in Section 7 Handling and Storage.
This material may be recycled if unused or uncontaminated.
Dispose of waste in accordance with relevant national, regional and local environmental control provisions.

Section 14: Transport Information

14.1 U.S. Hazardous Materials Regulation (DOT 49CFR):
Not regulated

14.2 Shipping name:
Not applicable

14.3 Transport hazard class(es):
Not applicable

14.4 Packing group:
Not applicable

14.5 Environmental hazards:
Not applicable

14.6 Special precautions for user:
Keep at temperatures between 5°C and 35°C. Keep away from food and feed.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
Not available

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

USA

TSCA Status:
All component substances are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

Clean Air Act:
Substances not listed.

Canada

NSNR Status:
All component substances are listed on the DSL.

NPRI:
Substances not listed.

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International Inventories:

Australia: Substances present on the inventory of chemical substances (AICS).

China: Substances present on the Chemical Inventory (IECSC).

European Union: Polyurethane resin has assigned EC pre-registration list number.

Japan: The polyurethane resin is not listed in the inventory Existing and New Chemical Substances (ENCS, ISHL).

Korea: Substances present on the inventory (KECI).

Mexico: The polyurethane resin is not listed in the chemical inventory (INSQ).

New Zealand: Substances present on the Chemical Inventory (NZIoC).

Philippines: The polyurethane resin is not listed in the Inventory of Chemicals and Chemical Substances (PICCS).

Taiwan: Substances present on the Chemical Substance Inventory (TCSI).

Vietnam: Substances present on the National Chemicals Inventory (NCI).

Section 16: Other Information

Revision date:

June 5, 2020

Revision summary:

Not applicable

References and sources for data:

CCOHS, Cheminfo
ECHA – European Chemicals Agency
HSDB® Hazardous Substances Data Bank, US National Library of Medicine
NIOSH Pocket Guide to Chemical Hazards
RTECS, Registry of Toxic Effects of Chemical Substances

Legend to abbreviations:

ACGIH® – American Conference of Governmental Industrial Hygienists
GHS- Globally Harmonized System for Classification and Labeling.
LD50- Median lethal dose; the dose causing 50 % lethality
NIOSH-National Institute for Occupational Safety and Health
OSHA - Occupational Safety and Health Administration
TLV® - Threshold Limit Value
WHMIS – Workplace Hazardous Materials Information System.

Supplier Note:

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.