

PRODUCT NAME(S): Acid Stain – Avocado

SECTION 1 – IDENTIFICATION

Manufacturer's Info:
Rhino Linings Corporation
9747 Businesspark Avenue
San Diego, CA, 92131

Product name: Acid Stain – Avocado
Recommended use: The product is intended for professional use only

Information phone: (858) 450 0441
Emergency contact: CHEMTREC (800) 424 9300

SECTION 2 – HAZARD(S) IDENTIFICATION

OSHA Hazard Communication Standard:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

GHS-Label Elements: **Signal Word:**
DANGER

Pictogram(s):



GHS 05



GHS 07



GHS 09

Classification of the substance or mixture:

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Acute toxicity, Oral	4	H302	Harmful if swallowed
Acute toxicity, Dermal	5	H313	May be harmful in contact with skin
Skin corrosion / Irritation	2	H315	Causes skin irritation
Serious eye damage / Eye irritation	1	H318	Causes serious eye damage
Skin Sensitization	1	H317	May cause an allergic skin reaction
Specific target organ toxicity, single exposure	3	H335	May cause respiratory irritation
Aquatic Hazard, Acute	1	H400	Toxic to aquatic life
Aquatic Hazard, Chronic	2	H411	Toxic to aquatic life with long lasting effects

Precautionary Statements:

Prevention:	P260 P271 P270 P280 P264 P272 P273	Do not breathe mist/ vapors/ spray. Use only outdoors or in a well-ventilated area. Do not eat, drink, and smoke when using this product. Wear protective gloves/ protective clothing / eye protection/ face protection. Wash exposed area with plenty of water and soap thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
Response:	P301 + P330 + P312 P302 + P352 P362 P333 + P313 P305 + P351 + P338 P310 P304 + P340 + P312 P391	IF SWALLOWED: Rinse mouth. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention. 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 or doctor/physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. Collect Spillage
Storage:	P403 + P233 P405	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal:	P501	Dispose of contents/container to hazardous or special waste collection point in accordance with local/regional/national/international regulations.
Hazards not otherwise classified:		See Section 11.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration, %
Copper Dichloride (Cupric Chloride)	7447-39-4	234-190-3	< 30
Iron Dichloride (Ferrous Chloride)	7758-94-3	231-843-4	< 3

SECTION 4 – FIRST-AID MEASURES**Description of First Aid measures:**

Inhalation: Remove the exposed person to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. Call a POISON CENTER or physician if you feel unwell.

Skin: Wash material off of the skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes immediately and wash them before reuse. For severe exposures, immediately get under safety shower and begin rinsing. If skin irritation or rash occurs: Get medical advice/attention.

Eye: Rinse immediately with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Do not rub eyes in order to prevent cornea injury. Immediate medical attention required. Chemical burns must be treated promptly by a physician or ophthalmologist.

Ingestion: Remove the exposed person to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any. If conscious, rinse mouth with water and then give plenty of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Do not induce vomiting unless directed to do so by medical personnel. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Most important symptoms/effects, acute and delayed: See Section 11 for more details.

General advice for First Aid responders: Show this SDS to physician.

Note to physician: Treatment should be symptomatic (decontamination, vital functions). Use of gastric lavage or vomiting is contraindicated. Consult poison specialist. Medical monitoring is necessary.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Not determined.

Specific hazards arising from the chemical: Noncombustible material. Contact with metals produces flammable and potentially explosive hydrogen gas. Hydrogen gas can be generated inside metal drums or storage tanks. Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and removed from the danger area as well as empty drums which may contain residual material. In the case of fire, product will decompose to emit toxic and irritating gasses. Prevent by any means entering of spillage into soil, ditches, sewers, waterways and/or groundwater. Hazardous combustion products: hydrogen gas, hydrogen chloride, oxides of metals present in the product (Iron, Copper), etc.

Special Protective Equipment and Precautions for fire-fighters: Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Isolate the scene by removing all persons from the incident area. No action should be taken involving any personal risk or without suitable training.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Ensure adequate ventilation/exhaust extraction. Avoid breathing vapors or mist during clean up. Use protective equipment as described in Section 8. Do not touch or walk through spilled material.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Inform the relevant authorities if the product has caused environmental pollution. See Section 12 for more details.

Methods and materials for containment and cleaning up: Remove mechanically; cover the remainder with inert absorbent material. Following absorption, transfer into properly labeled chemical waste containers. Wash the spill site with soap and water. Cover container and remove from work area. Keep in a well ventilated area. Properly dispose of the waste material and any contaminated equipment (i.e. broom or brush) in accordance with existing federal, state and local regulations.

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For major spills: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Wash spillages into an effluent treatment plant or contain and collect with an absorbent material as described in the previous paragraph.

For minor spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly with soap and water to remove residual contamination.

Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, see Section 1 for the Emergency contact; for further disposal measures, see Section 13.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Use only outdoors or in a well-ventilated area. Do not breathe mists. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash face, hands, and any exposed skin thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated work clothing should not be allowed out of the workplace. See Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Store in original or approved alternative container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect it against physical damage. Normal temperature and pressures do not affect the material. Keep liquid away from heat, sparks and flame. Do not cut, drill, grind, weld or perform similar operations on or near containers.

Storage stability: Stable under normal conditions.

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Employees and consumers should be warned of health risks associated with product use. See Section 8 for additional information on hygiene measures.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters/Occupational exposure limit values: Not available for mixture. Results for components are listed in Section 15.

Appropriate engineering controls: Good local and general ventilation should be sufficient to control worker exposure to airborne contaminants below recommended exposure limits. Local exhaust may be required in some areas.

Personal protective equipment:

Eye/face protection:

When directly handling liquid product, eye protection is required. Examples of eye protection include safety glasses and goggles or full face shield when there is a greater risk of splash. Contact lenses should not be worn when working with chemicals.

Skin/body protection:

Impervious gloves (nitrile butyl rubber, neoprene or PVC) should be worn always when working with this product. Body should be covered with appropriate clothing (apron, arm covers or full body suit) depending on the task being performed and the risks involved. Protective clothing should be selected and used in accordance with “Guidelines for the Selection of Chemical Protective Clothing” published by ACGIH. Wash contaminated clothing before reuse. Store work clothing separately. Appropriate footwear should be also selected based on the task being performed and the risks involved. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Respiratory protection:

Use local or general ventilation to control exposures below applicable exposure limits. When ventilation is inadequate, use either an atmosphere supplying respirator or NIOSH or OSHA approved air-purifying respirator for organic vapors. Respirator must be properly fitted and its selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Additional Protective Measures: Educate and train employees in safe handling of this product. Follow all label instructions. As a general hygiene practice, wash hands and face after use. Clean water should always be readily available for emergency skin and eye washing. Emergency eyewash fountains and safety shower are recommended in close proximity as a matter of good work practice.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Green liquid
Odor:	Pungent
Odor threshold:	Not available
pH:	<2
Melting point/ freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	Water solution, will not burn
Evaporation rate:	Not available
Flammability (solid, gas):	Not applicable
Upper/ lower flammability or explosive limits:	Not applicable

Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	1.40-1.60
Solubility (water):	Soluble
Partition coefficient n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Product will not undergo hazardous polymerization under normal conditions of storage and use. Corrosive effects to metal are anticipated.

Chemical stability: Stable under recommended storage conditions.

Conditions to avoid: Avoid vapor and mist formation. Avoid heat.

Incompatible materials: Strong oxidizing and reducing agents; alkali metals, metal alloys, stainless steel, ethylene oxide, hydrazine, nitromethane, sodium hypobromite, combustible materials, etc.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. In fire conditions, depending on temperature, air supply and presence of other materials, decomposition products can include, but are not limited to hydrogen gas, hydrogen chloride, oxides of metals present in the product (Iron, Copper).

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin and Eye Contact, Inhalation and Ingestion.

Symptoms of exposure:

Acute toxicity:

Oral: Harmful if swallowed. May cause burns to mouth, throat and stomach.

Dermal: May be harmful in contact with skin.

Inhalation: May be harmful if inhaled.

Skin corrosion / irritation:

Causes skin irritation.

Serious eye damage / eye irritation:

Causes serious eye damage. Adverse symptoms may include tearing, redness, swelling, burning and blindness.

Specific target organ toxicity, single exposure:

May cause respiratory irritation after single exposure.

Aspiration hazard: Not available.

Chronic toxicity:

Respiratory and Skin Sensitizer:

This product contains component that is reported to be a respiratory and/or skin sensitizer.

- Iron Dichloride, CAS #: 7758-94-3: skin sensitizer

Germ cell mutagenicity:

This product contains component which cause concern due to possible effects, but for which the available information is not adequate for making a satisfactory assessment.

Carcinogenicity:

This product does not contain components known or reported to be carcinogenic by IARC, NTP, OSHA and ACGIH.

Reproductive toxicity:

Based on available info, risk to humans is not expected from exposure to this product.

Specific target organ toxicity, repeated exposure:

Not classified, however it may affect kidneys, liver, lungs, eyes through prolonged or repeated exposure.

Medical conditions aggravated by overexposure:

Kidneys, liver, lungs, eyes if product is handled without adequate protection.

Toxicity test results: Not available for mixture. Results for components:

Components	Test Results
Copper Dichloride, CAS #: 7447-39-4	<u>Acute Toxicity:</u> Oral LD50 (Rat): 584 mg/kg; Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. Dermal LD50 (Rat, male): > 2,000 mg/kg; (Rat, female): 1,224 mg/kg (OECD Test Guideline 402) Inhalation LC50: May be harmful if inhaled. May cause respiratory and digestive tract irritation. Skin corrosion/irritation (Rabbit): Irritating to skin. Causes redness and pain. Serious eye damage/eye irritation (Rabbit): Causes serious eye damage. May result in corneal injury. STOT, SE: May cause respiratory irritation. Aspiration hazard: No data available. <u>Chronic toxicity:</u>

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	<p>Sensitization, skin and respiratory: (Guinea pig): Does not cause skin sensitization. (OECD Test Guideline 406, GPMT) Germ cell mutagenicity: No data available. Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC, NTP, OSHA and ACGIH. Reproductive toxicity: No data available. STOT, RE: Kidneys, liver, lungs, eyes.</p>
Iron Dichloride, CAS #: 7758-94-3	<p><u>Acute Toxicity:</u> Oral LD50 (Rat): > 500 mg/kg (OECD Test Guideline 423); Causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling, dizziness, chest and muscle pain. Dermal LD50 (Rat): No data available. Inhalation LC50: Cough, shortness of breath, headache, nausea, vomiting. Skin corrosion/irritation (Rabbit): Causes severe skin burns and eye damage. (OECD Test Guideline 404) Serious eye damage/eye irritation (Rabbit): Risk of serious damage to eyes. (OECD Test Guideline 405) STOT, SE: Respiratory system. Aspiration hazard: No data available. <u>Chronic toxicity:</u> Sensitization, skin and respiratory: May cause an allergic skin reaction. Category 1. Germ cell mutagenicity: Hamster Embryo Morphological transformation. Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, OSHA, ACGIH. Reproductive toxicity: No data available. STOT, RE: Liver.</p>

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: Very toxic to aquatic life with long lasting effects. Prevent release into the environment.

Persistence and degradability: Persistent.

Bioaccumulative potential: Not expected.

Mobility in soil: Likely highly mobile based on water solubility results.

Other adverse effects: Not known.

Ecotoxicity test results: Not available for the mixture. Results for components:

Components	Test Results
Copper Dichloride, CAS #: 7447-39-4	<p><u>Acute Toxicity:</u> Very toxic to aquatic life. Fish (Carp), 96hrs: LC50: 0.12 - 0.23 mg/L (OECD Test Guideline 203). Aquatic Invertebrates (Daphnia magna), 48hrs: EC50: 0.04 mg/L (OECD Test Guideline 202) Aquatic Plants (Fresh water algae), 96hrs: EC50: 0.2 mg/L (OECD Test Guideline 201) <u>Chronic toxicity:</u> Toxic to aquatic life with long lasting effects. Fish (zebra mussel), 63 days: NOEC: 0.013 mg/L. <u>Ecological data:</u> No data available.</p>
Iron Dichloride, CAS #: 7758-94-3	<p>Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. <u>Acute Toxicity:</u> Category 2 Fish (Japanese rice fish), 96hrs: LC50: 46.6 mg/L (OECD Test Guideline 203) Aquatic Invertebrates (Daphnia magna), 48hrs: EC50: 19 mg/L (OECD Test Guideline 202) Aquatic Plants (algae), 72hrs: EC50: 17.7 mg/L (OECD Test Guideline 201) <u>Chronic toxicity:</u> Category 2 <u>Ecological data:</u> Persistence and degradability: Soluble in water. Persistence is unlikely based on information available. Bioaccumulative potential: No data available. Mobility in soil: Will likely be mobile in the environment due to its water solubility.</p>

SECTION 13 – DISPOSAL CONSIDERATIONS

Product Disposal: The generation of waste should be avoided or minimized wherever possible. If product becomes a waste, it meets criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do not discharge into sewer system. Spill cleanup residues are subject to RCRA storage and disposal requirements. Dispose waste in compliance with local, state and federal regulations via licensed waste disposal contractor.

Container disposal: Even after emptying, container may retain residues. Empty containers should be completely drained and safely stored until appropriately reconditioned or disposed through licensed contractor in accordance with government regulation. This material and its container must be disposed of in a safe way

SECTION 14 – TRANSPORT INFORMATION

	Land transport, U.S. DOT	Sea transport, IMDG:	Air transport, IATA/ICAO:
UN number:	UN 3264	UN 3264	UN 3264
UN proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s. (Contains Copper Dichloride and Iron Dichloride)	Corrosive liquid, acidic, inorganic, n.o.s. (Contains Copper Dichloride and Iron Dichloride)	Corrosive liquid, acidic, inorganic, n.o.s. (Contains Copper Dichloride and Iron Dichloride)
Transport hazard class(es):	8	8	8
Packing group:	II	II	II
Hazard Label	8	8	8

Special precautions:	Environmental Hazard: Yes, Marine Pollutant
	Shipping descriptions are provided for informational purposes and do not consider container sizes and packaging. Certain exceptions may be applied as outlined in 49 CFR 173.154.
	Special Provisions: B2, IB2, T11, TP2, TP27
	Exceptions: 154; Non bulk: 202 / Bulk: 242 / Passenger aircraft rail: 1L / Cargo aircraft only: 30L / Location: B

SECTION 15 – REGULATORY INFORMATION

U.S. Regulations:

OSHA HCS: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

TSCA Regulations:

All components of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

EPCRA Section 302 (40 CFR Part 355) (Emergency Response Planning, Extremely Hazardous Substance):

No components are subject to the reporting.

EPCRA Section 304 (40 CFR Part 355) (Emergency Release Notification Requirements):

No components are subject to the reporting.

EPCRA Sections 311 & 312 (Hazardous Chemical Inventory Reporting, Hazard Categories):

Acute Health Hazard, Chronic Health Hazard, Reactive Hazard

EPCRA Section 313 (40 CFR Part 372) (Toxic Chemical Release Inventory Reporting):

The following components are the subject for reporting:

- Copper Dichloride, CAS #: 7447-39-4: in Product: < 30% De Minimis: 1.0% for Copper Compounds, N100

CERCLA Sections 102-103 (40 CFR Part 302) (Hazardous Substances Release Notification):

The following components are listed:

- Copper Dichloride, CAS #: 7447-39-4: RQ: 10 lbs
- Iron Dichloride, CAS #: 7758-94-3: RQ: 100 lbs

Clean Air Act:

- Ozone Depleting Substances (ODS): This product does not contain and is not manufactured with ozone depleting substances.
- Hazardous Air Pollutants, OSHA, Section 112(b), Table Z-1:

Substance	Regulatory Limits			Recommended Limits		
	OSHA PEL		Cal/OSHA PEL	NIOSH REL		ACGIH® 2015 TLV®
	ppm	mg/m ³	(as of 4/26/13)	(as of 4/26/13)		
			8-hour TWA, mg/m ³	Up to 10-hour TWA, mg/m ³	8-hour TWA, mg/m ³	
Copper, CAS #: 7440-50-8	Fume (as Cu)	-	0.1	0.1	0.1	0.2
	Dusts and mists (as Cu)	-	1	1	1	1

ppm-parts per million; (ST)-short term exposure level; Appendix A, C refers to Appendixes of HAP List, Section 112(b) of Clean Air Act

NIOSH IDLH: 100 mg/m³ for Copper and compounds

Exposure limits for components not listed by OSHA:

- Iron Dichloride, CAS #: 7758-94-3:
 - ACGIH TLV: 1 mg/m³ TWA (as Fe) (listed under Iron salts (soluble)).
 - NIOSH REL: 1 mg/m³ TWA (as Fe) (listed under Iron salts (soluble)).

Clean Water Act:

- Section 307(a): (Priority Toxic Pollutants 40 CFR 401.15)
 - Copper and Compounds
- Section 311(b): (Hazardous substances, Table 116.4)
 - Copper Dichloride, CAS #: 7447-39-4: RQ: 10 lbs
 - Iron Dichloride, CAS #: 7758-94-3: RQ: 100 lbs

NFPA rating: Health: 3 Fire: 0 Reactivity: 1 Special: 0

HMIS rating: Health: 3* Flammability: 0 Physical hazard: 1

State Regulations:

California Prop. 65 Components:

This product does not contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Instruction: for regulatory information on components of this mixture, check the appropriate state websites.

International Regulations/Inventories:

Canada: All components of this product are listed or are exempt from the DSL.

SECTION 16 – OTHER INFORMATION

LEGEND

GHS	Globally Harmonized System
CAS	Chemical Abstracts Services
EC	European Community
EPA	Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
NIOSH	National Institute of Occupational Safety and Health

PEL	Permissible Exposure Limits
TLV	Threshold Limit Value
REL	Recommended Exposure Limit
TWA	Time-Weighted Average
STEL	Short-term exposure limit
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
COD / BOD	Chemical Oxygen Demand / Biological Oxygen Demand
PACs / PAH	Polycyclic Aromatic Compounds / Polycyclic Aromatic Hydrocarbon Content
STOT, SE	Specific Target Organ Toxicity following Single Exposure
STOT, RE	Specific Target Organ Toxicity following Repeated Exposure
DOT	Department of Transportation
IMDG	International maritime dangerous goods code
IATA, ICAO	International Air Transport Association, International Civil Aviation Organization
TSCA	Toxic Substances Control Act
EPCRA	Emergency Planning and Community Right-to-Know Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
RQ	Reportable Quantity
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

Latest revision date: March 30, 2016 – Preparation of SDS in accordance to the GHS requirements

Date of the previous revision: September 6, 2011

Disclaimer: The data set forth in this sheet are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. Rhino Linings Corporation makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.