

SAFETY DATA SHEET

For Emergency Call: Searing Industries (909) 948-3030

Section 1: Identification

Product Name: O.D. Dark Green Coated Squares and Rectangles. (Hot Rolled Steel)

CAS Number: 65997-19-5

Manufacturer: Searing Industries

8901 Arrow Route • Rancho Cucamonga, CA 91730 • (909) 948-3030 5310 Clear Creek Pkwy. • Cheyenne, WY 82007 • (800) 874-4412

Section 2: Hazard(s) Identification

Classification

Label Elements

H317 - Sensitization, Skin - Category 1A H351 – Carcinogenicity – Category 2



WARNING

May cause an allergic skin reaction. (H317) Suspected of causing cancer. (H351)

CAUTION

Welding, fabricating or processing of these products may release metallic fumes and particles that can cause respiratory tract irritation and flu-like symptoms when inhaled or irritate the eyes.

Precautionary Statement(s)

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves when handling.

IF ON SKIN: Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

If exposed or concerned: Get medical advice/attention.

Wear approved respiratory protection.



Section 3: Composition/Information on Ingredients	Section 3:	Compos	sition/Informa	ation on	Ingredients
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NAME	% WEIGHT	CAS NUMBER
Iron	>97	7439-89-6
Manganese	0.10-1.65	7439-96-5
Copper	0.35 max	7440-50-8
Nickel	0.10 max	7440-02-0
Chromium Alloy	0.20 max	7440-47-3
Vanadium	0.04 max	7440-62-2
Carbon	0.30 max	7440-44-0
Silicon	0.04 max	7440-21-3
Phosphorus	0.025 max	7723-14-0
Sulfur	0.025 max	7704-34-9
Molybdenum	0.060 max	7439-98-7
Aluminum	0.08 max	7429-90-5
Columbium	0.070 max	7440-03-1
Tin	0.020 max	7440-31-5
Nitrogen	0.012 max	7727-37-9
Titanium	0.080 max	7440-32-6
Calcium	0.006 max	7440-70-2
Boron	0.005 max	7440-42-8

Section 4: First-Aid Measures

EYES: If irritation or redness develops from dust exposure, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

SKIN: First aid is not normally required. However, it is good practice to wash any material from the skin.

INHALATION: First aid is not normally required. If breathing difficulties develop, move victim away from source of exposure and into fresh air. Seek immediate medical attention.

INGESTION: First aid is not normally required. However, if dust is swallowed and symptoms develop, seek medical attention.

Section 5: Fire-Fighting Measures

No unusual fire or explosive hazards are expected. However, dust powder or fumes are flammable or explosive when exposed to heat or flames. For fires involving powder or dust, use dry chemicals, sand, earth, water spray or regular foam.

NFPA Fire Rating	Health Hazard	0
•	Flammability	0 (2*)
	Reactivity	0

Key: Least = 0, Slight = 1, Moderate = 2, High = 3, Extreme = 4

^{*}If dust is formed



Section 6: Accidental Release Measures

These products are in solid form. A spill or catastrophic release to the environment of any of the constituents is not possible.

Section 7: Handling and Storage

These products tolerate a wide variety of indoor and outdoor storage conditions without creating any health or environmental hazards.

These products will react with strong acids resulting in the release of flammable hydrogen gas.

Section 8: Exposure Controls/Personal Protection

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Particulates, not otherwise specified if generated	10 mg/m³ total 3 mg/m³ respirable	None	15 mg/m³ total 5 mg/m³ respirable	None
Chromium Alloy	0.5 mg/m ³	None	1 mg/m ³	None
Iron (oxide dust & fume)	5 mg/m ³ - respirable	None	10 mg/m ³	None
Manganese	0.02 mg/m³ - respirable 0.1 mg/m³ - inhalable	None	None	5 mg/m³ (CEILING)
Nickel	1.5 mg/m³ 0.2 mg/m³ (insoluble)	None	1 mg/m³	None

PERSONAL PROTECTION:

RESPIRATORY: NIOSH/MSHA-approved dust and fume respirators should be used to avoid excessive inhalation of particulate. Appropriate respirator selection depends on the magnitude of exposure.

SKIN: Protective gloves should be worn as required for welding, burning, or handling operations.

EYE: Use safety glasses or goggles for welding, burning, sawing, brazing, grinding, or machining operations. **VENTILATION:** Local exhaust ventilation should be provided when welding, burning, sawing, brazing,

grinding, or machining to prevent excessive dust or fume exposure.

Section 9: Physical and Chemical Properties

Appearance: Metallic gray

Upper/Lower flammability or explosive limits: Will not combust

Odor: Odorless

Vapor pressure: Not applicable

Physical State: Solid Melting Point: 2750°F

Solubility in water: Insoluble

Specific Gravity: 7.85



Section 10: Stability and Reactivity

Stability: Stable under normal conditions of storage and handling.

Conditions to avoid: Storage near strong oxidizers. **Incompatibility:** Avoid contact with strong oxidizers.

Hazardous Decomposition Products: Thermal decomposition may release hazardous metal fumes.

Hazardous Polymerization: Not applicable.

Section 11: Toxicological Information

Information on the Toxicological Effects of Substances / Mixture

Acute Toxicity	<u>Hazard</u>	LC50/LD50 Data
Inhalation	Non-hazardous	LC50>5 mg/l (dust)
Skin Absorption	Non-hazardous	LD50>2000 mg/kg
Ingestion	Non-hazardous	LD50>5000 mg/kg

Note: Steel products, under normal conditions, do not present an inhalation, ingestion, or skin hazard. However, operations such as welding, grinding, sawing and burning, which may cause airborne particulates or fume formation, may present a health hazard.

Skin Corrosion / Irritation: Contact with dusts or particulates produced by cutting, welding, or grinding may be abrasive and cause mild irritation to the skin. Particulates may cause a red-brown pigmentation of the skin following repeated exposure.

Serious Eye Damage / Irritation: Contact with dusts or particulates produced by cutting, welding or grinding may be abrasive and cause irritation to the eyes and cause stinging, watering and redness.

Signs and Symptoms: Effects of overexposure may include irritation of the nose, throat, and digestive tract. **Respiratory Sensitization:** Not expected to be a respiratory sensitizer.

Cancer: No information available on the cancer hazard of this material. However, nickel, a component, has been identified as a cancer hazard.

Reproductive Toxicity: No Information available on the reproductive hazard of this material. However, manganese, a component, has demonstrated some effects on the male reproductive system. These effects are not sufficient enough to classify the material as a reproductive hazard.

Specific Target Organ Toxicity (Single Exposure): Not expected to cause effects from single exposure.

Specific Target Organ Toxicity (Repeated Exposure): Not expected to cause organ effects from repeated exposure. Although Nickel has effects on the respiratory system, it is in this material below 1%.

Aspiration Hazard: Not applicable.



Section 11 continued

Manganese CAS # 7439-96-5

Repeated administration of manganese resulted in limited evidence of male reproductive effects in laboratory animals. The adverse effects included decreased spermatids, spermatocytes and degeneration of seminiferous tubules. Chronic administration of certain inorganic manganese salts has resulted in limited evidence of central nervous system effects in laboratory animals. The effects included degenerative changes in basal ganglionic cells. These effects do not meet the criteria for classifying it as a reproductive toxicant.

Nickel CAS # 7440-02-0

There is limited evidence in animals for the carcinogenicity of metallic nickel, nickel monoxides, nickel hydroxides and crystalline nickel sulfides, and limited evidence in animals for other nickel compounds (e.g., alloys, arsenides and nickel carbonyl). Occupational exposure has been associated with cancer of the lung and nasal cavity. Nickel and nickel compounds have been identified as carcinogens by NTP and IARC.

Welding Fumes

Welding fumes may be different in composition from the original welding product, with the chief component being ordinary oxides of metal being welded. Chronic health effects (including cancer) have been associated with the fumes and dusts of individual component metals, and welding fumes as a general category have been listed by IARC as a carcinogen. There is also limited evidence that welding fumes may cause adverse reproductive and fetal effects. Evidence is stronger where welding materials contain known reproductive toxicants.

This material/product contains chemicals known to the State of California to cause cancer and/or reproductive toxicity that may be released during welding.

Section 12: Ecological Information

This material is not classified as hazardous to the aquatic environment. Components greater than or equal to 1% are not classified as hazardous.

Section 13: Disposal Considerations

The generator of waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

These products, as well as any scrap material generated from their use, are usually recycled and reused. This material, if discarded as produced, is considered to be non-hazardous under RCRA. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.



Section 14: Transportation Information

Transportation of these products is not regulated under the U.S. Department of Transportation Hazardous Materials Regulations, or by the United Nations Recommendations on the Transport of Dangerous Goods.

Section 15: Regulatory Information

Component	TSCA inventory	DSL	SARA 313 (Deminimis)	SARA 302	SARA 304	CERCLA RQ	CAA 112(r)	CA Prop 65
Aluminum	Х	Х	X (1%)					
Carbon	X	Х						
Chromium Alloy	Х	Х	X (1%)		Х	5000	X as Chromium Compounds	
Columbium	X	X						
Copper	X	Х	X (1%)		Х	5000		
Iron	X	Х						
Manganese	X	Х	X (1%)				X as Manganese Compounds	
Molybdenum	X	X						
Nickel	X	Х	X (0.1%)		X	100	X as Nickel Compounds	Х
Nitrogen	X	Χ						
Phosphorus	X	Χ	X (1%)	Χ	Χ	1	X	
Silicon	X	Χ						
Sulfur	X	Χ						
Tin	X	Χ						
Titanium	X	Χ						
Vanadium	X	Χ	*X (1%)					

^{*}Except when used in alloys

WARNING: This product can expose you to chemicals including nickel, which is known to the State of California to cause cancer, and chromium (hexavalent compounds) from welding fumes, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Sections 311/312: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of SARA Title III and is considered, under applicable definitions, to meet the following categories:

Acute: No Chronic: Yes Fire: No Pressure Hazard: No Reactivity: No

This material has not been identified as a carcinogen by NTP, IARC or OSHA.

U.S. FEERAL REGULATIONS:

OSHA: These products are not classified as Hazardous Substances under 29 CFR 1900.1200

TSCA: All ingredients appear on inventory.

CERCLA: While alloys are listed, a release above reportable thresholds is unlikely.

SARA TITLE III, Sections 302, 311/312: Not applicable to these products.



Section 15 Continued

These products contain toxic chemicals which are subject to the reporting requirements of **Section 313** of **SARA TITLE III** of 1986 and **40CFR part 372**. The following chemicals contained in this material are subject to the reporting requirements of Section 313:

Chemical	CAS Number	Typical Weight Percentage
Aluminum	7429-90-5	0.08 max
Chromium Alloy	7440-47-3	0.20 max
Copper	7440-50-8	0.40 max
Manganese	7439-96-5	0.10-1.65
Nickel	7440-02-0	0.40 max
Phosphorus	7723-14-0	0.025 max
Vanadium	7440-62-2	0.04 max

Section 16: Documentary Information

Issue Date: October 20, 2023

Previous Issue Date: January 27, 2021

Reason for Revision: Periodic review. No major changes.

Lead, cadmium, mercury, chromium VI, PBB' or PBDE's are not present. All manufactured Hot Rolled products are ROHS, REACH and LBC compliant. No 3TG (3TG = Tin, tungsten, tantalum, gold) elements are sourced, required, or contained necessary to the manufacture of Hot Rolled products.

The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. This information and the product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assumes the risk of his use thereof.



Section 1: Product And Company Identification

KZ 9601 Dark Green Coating

North America: Europe: Asia:

ALLIED PHOTOCHEMICAL, INC. ALLIED PHOTOCHEMICAL, INC. ALLIED PHOTOCHEMICAL, INC.

48 N. Airport Road 48 N. Airport Road 48 N. Airport Road

Kimball, Michigan 48074 USA Kimball, Michigan 48074 USA Kimball, Michigan 48074 USA Phone: 810-364-6910 (day phone) MSDS Issuer: EHS Department MSDS Issuer: EHS Department MSDS Issuer: EHS Department

Emergency Phone (United States): Emergency Phone (United States): Emergency Phone (United States):

800-424-9300 800-424-9300 800-424-9300 CHEMTREC CHEMTREC CHEMTREC

Section 2: Hazards Identification

Classification of the product:

Causes skin irritation, Category 2, H315
May cause an allergic skin reaction, Category 1, H317
Causes serious eye damage, Category 1, H318
Harmful to aquatic life with long lasting effects, Category 3 H412

GHS Label elements:

Hazard pictograms:



Signal word: Danger

Hazard Statements:

H315 Causes skin irritation

H317 May cause an allergic skin reaction H318 Causes serious eye damage

H412 Harmful to aquatic life with long lasting effects

Precautionary statements:

Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands/skin thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

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

Response:

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see supplemental first aid instructions on this label)

P332+P313 IF SKIN irritation occurs: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.



Section 2 Continued

Disposal:

P501 Dispose of contents/container to an approved waste disposal plant.

GENERAL HEALTH EFFECTS: Irritant to skin, eyes and respiratory tract. Effects may be delayed for several hours.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: No data available. Repeated and prolonged overexposure may increase the potential for adverse health effects.

Section 3: Ingredients

COMMON NAME	CHEMICAL NAME	PERCENT BY WEIGHT	CAS#	EXPOSURE LIMITS	EINECS#
Acrylated Monomers	Trade Secret	Trade Secret	Trade Secret	Not established	Trade Secret
Acrylated Oligomer	Trade Secret	Trade Secret	Trade Secret	Not established	Trade Secret
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Section 4: First Aid Measures

SKIN CONTACT: Remove and isolate contaminated clothing and shoes. Remove excess material from skin with clean cloth. Flush skin with running lukewarm water. Wash affected areas using mild soap.

EYE CONTACT: Flush the eye and under lids with warm water for 15 minutes. Remove any contact lenses during the flushing. Get immediate medical attention if symptoms persist.

INHALATION: Move subject to fresh air and keep warm. If subject is not breathing, administer artificial respiration. If breathing is difficult, have qualified personnel administer oxygen and get medical attention.

INGESTION: If appreciable quantities are swallowed, seek immediate medical attention.

Section 5: Fire Fighting Measures

FLASHPOINT: Not tested, expected to be >200° F (> 93.3°C) based on evaluation of constituent materials.

XI - IRRITANT

N - DANGEROUS TO THE ENVIRONMENT

FLAMMABLE/EXPLOSIVE LIMITS (Volume % in air): Not established

EXTINGUISHING METHOD: Water fog, carbon dioxide (CO2) or dry chemical

AUTO-IGNITION TEMPERATURE: Not established

Evacuate area of all non-emergency personnel. Fire fighters must wear full emergency equipment with self-contained breathing apparatus. At elevated temperatures hazardous polymerization may occur causing container rupture and in extreme cases, explosion. Fight fires from upwind and cool intact containers with water spray or stream at maximum range.



Section 6: Accidental Release Measures

Remove all sources of ignition and ventilate area. Avoid skin and eye contact. Use respiratory protection. Absorb with inert materials such as dry clay or sand and place in closed container for disposal as solid waste in accordance with all applicable regulations.

Environmental Precautions: Do not empty into drains. Do not discharge into drains/surface waters/groundwater.

Section 7: Handling And Storage

HANDLING: Avoid any unnecessary contact. Use protective clothing specified in Section 8.

STORAGE: Store away from heat and sunlight to prevent polymerization. Polymerization initiators include peroxides, strong oxidizers, aluminum, copper, copper alloys, carbon steel, iron, rust, and strong bases.

Section 8: Exposure Controls / Personal Protection

HAND PROTECTION: Use nitrile, butyl, neoprene or other gloves that are resistant to chemicals in Section 2. Replace immediately if punctured or torn or when a change of appearance (color, elasticity, shape) occurs. RadTech recommends a minimum of 0.45mm thick, nitrile gloves for long duration exposure (up to 4 hours on most UV/EB-curing acrylates) or mechanical handling activities. Single use, disposable nitrile gloves are recommended by RadTech for short duration exposures not exceeding 30 minutes, in situations where only splashes are likely.

EYE PROTECTION: Use splash-proof safety goggles, safety glasses, or face shields that are ANSI approved to prevent eye contact. Eyewash availability is also recommended.

SKIN PROTECTION: Protective or disposable outer clothing is recommended. Protective clothing must be cleaned thoroughly after each use.

RESPIRATORY PROTECTION: Use local exhaust to control vapors and mists. Use of NIOSH approved respirators for organic vapors, is recommended where TLV is exceeded.

Section 9: Physical And Chemical Properties

APPEARANCE, PHYSICAL STATE AND ODOR: Green Viscous Liquid, mild odor

Viscosity: 100-300 cps @25 C **Density:** 8.8-9.2 Lbs/Gallon **BOILING POINT (°F):** Not available FREEZING POINT: Not available **SPECIFIC GRAVITY: 1.07 EVAPORATION RATE: <1**

VAPOR PRESSURE (mm Hg): <0.1 mm Hg **VAPOR DENSITY:** Not established **SOLUBILITY IN WATER:** Practically insoluble **VOC:** < 0 grams/liter

pH: Not available

SECTION 10: REACTIVITY / STABILITY HAZARD DATA

STABILITY: This material is stable under recommended storage and handling conditions. Refer to section 7.

CONDITIONS TO AVOID: Excessive heat, ignition sources, exposure to sunlight and contamination with dirt and other foreign materials.

SUBSTANCES TO BE AVOIDED: Polymerization initiators including peroxides, strong oxidizing agents, copper, copper alloys, carbon steel, iron, rust and strong bases

INCOMPATIBILITY: No data available



Section 10 Continued

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal oxidation or pyrolysis (as in fire) may yield carbon dioxide, carbon monoxide and volatile organic fragments which are flammable, irritating or toxic.

HAZARDOUS POLYMERIZATION: Under certain conditions (excess temperatures and contamination) hazardous polymerization may occur. Avoid high temperature and contamination with foreign materials.

Section 11: Toxicological Information

TOXICOLOGICAL DATA: Slightly toxic by ingestion. Prolonged or repeated exposure may result in sensitization.

LD50 - Not determined LC50 - Not determined

REPRODUCTIVE TOXICITY: Not determined TERATOGENICITY: Not determined MUTAGENICITY: Not determined

CARCINOGENICITY: IARC? No NTP? No OSHA? No

Components:

Data from available scientific literature on the components of this material which have been identified as hazardous chemicals under the criteria of the OSHA Hazard Communications Standard (29 CFR 1910.1200) or the Canadian Hazardous Act are discussed below:

Acute oral toxicity	No data available
Acute inhalation toxicity	No data available
Acute dermal toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/	No data available
Eye irritation	
Respiratory or skin sensitisation	No data available
Target Organ Systemic Toxicant – Repeated exposure	No data available
Skin corrosion/irritation	No data available

Section 12: Ecological Information

No determination has been made on ecological impact. However, it is highly recommended to prevent contamination of the environment with this product, i.e. soil, landfills, drains, sewers, surface waters, etc.

Section 13: Disposal Considerations

Dispose of this product in accordance with all applicable laws and regulations.



Section 14: Transportation Information

Transport this product in accordance with all applicable laws and regulations. This product, as supplied, is not regulated nor classified as a hazardous material/dangerous good by United States Department of Transportation (DOT), the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), the Canadian Transportation of Dangerous Goods Act (TDG), or the International Air Transport Association (IATA).

Section 15: Regulatory Information

This Safety Data Sheet has been formatted to the best of our ability in accordance with American National Standards Institute (ANSI), European Communities (EC), and contains hazard criteria and all information required by the Canadian Controlled Products Regulation (CPR) in regard to this product.

INTERNATIONAL REGULATIONS

Canadian Inventory Status: All components of this product are currently listed on the Canadian Domestic Substance List (DSL) or the Canadian Non-Domestic Substance List NDSL.

European Inventory Status: All components of this product are listed on the European Inventory of Existing Commercial Substances (EINICS) or the European List of Notified Chemical Substances (ELINCS). This product is classified and labeled in accordance with EC directives.

U.S. FEDERAL REGULATIONS

California Proposition 65 Right-To-Know (RTK): This product does not knowingly contain substance (s) known to the state of California to cause cancer and/or reproductive toxicity.

Clean Air Act- Hazardous Air Pollutants (HAP): This product and its components do not contain any Hazardous Air Pollutants.

Clean Air Act – Ozone Depleting Substances (ODS): This product and its components do not contain Ozone Depleting Substances.

Clean Water Act - Priority Pollutants (PP): This product and its components do not contain Priority Pollutants.

Coalition of Northeastern Governors (CONEG): This product meets the requirements of CONEG pertaining to heavy metals total content of no more than 100 PPM. No heavy metals are added as a part of the formulation, but raw materials may contain residual parts per million as naturally occurring elements.

Food and Drug Administration (FDA) Food Packaging Status: This product has not been cleared by the FDA for use in food packaging and/or other applications as an indirect food additive.

Occupational Safety and Health Act (OSHA): Refer to Section 11 for OSHA hazardous classification of components.

Resource Conservation and Recovery Act (RCRA): This product is not regulated as a hazardous substance under 40 CFR 261.

SARA Title III Section 302 - Extremely Hazardous Substances (EHS): This product is not regulated as an EHS.

SARA Title III Section 304 - CERCLA: This product is not regulated for emergency release notification.



Section 15 Continued

SARA Title III Section 311/312 – Hazard Communication Standard (HCS): Some components of this product are classified under SARA Title III Section 311/312 as an immediate (acute) hazard and a reactive hazard.

SARA Title III Section 313 – Toxic Chemical List (TCL): This product and its components are not listed under the Toxic Chemical Release Reporting requirements.

Toxic Substances Control Act (TSCA) Section 5(e): This product is not regulated under the Consent Order/Significant New Use Rule.

Toxic Substances Control Act (TSCA) Section 8(b) – Inventory Status: All chemicals in this product are TSCA listed or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Section 16: Other Information

Revision History:

6/11/2015 - Original issue

Disclaimer: To the best of our knowledge, the product information contained herein is based upon data believed to be reliable, however makes no warranty and disclaims any liability whatsoever for its accuracy or completeness. Since the actual use of the product is beyond our control, no guarantee expressed or implied, is made by Allied PhotoChemical as to the effects of such uses nor does Allied PhotoChemical assume liability arising out of the use of this product by others. It remains the responsibility of the user to ensure that the use of the product herein is in accordance with all applicable laws and regulations.