

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ARDROX 8505 (1 LB)

Version 2.0 Revision Date: 12/18/2025 SDS Number: 000000000050559374 Date of last issue: 03/02/2025
Date of first issue: 04/10/2024

SECTION 1. IDENTIFICATION

Product name : ARDROX 8505 (1 LB)
Product code : 000000000050559374

Manufacturer or supplier's details

Company:
Chemetall U.S., Inc.
675 Central Avenue
New Providence, NJ 07974 – USA
+1 800 526-4473
sds.na-chemetall@basf.com

Emergency telephone : CHEMTREC: 800-424-9300, +1-703-527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Nondestructive Testing
Restrictions on use : Uses other than recommended

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Short-term (acute) aquatic hazard : Category 3

Long-term (chronic) : Category 3

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aquatic hazard

GHS label elements

Hazard Statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

: **Prevention:**
P273 Avoid release to the environment.

Disposal:
P501 Dispose of contents and container to an approved waste disposal plant.

Other hazards

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : polymers
pigment
organic compounds

Components

Chemical name	CAS-No.	Concentration (% w/w)	Synonyms
diiron trioxide	1309-37-1	>= 60 - < 80	diiron trioxide
2-Hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1-naphthyl)methylene]hydrazone	2387-03-3	>= 10 - < 30	2-hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1-naphthyl)methylene]hydrazone

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aluminium hydroxide	21645-51-2	>= 1 - < 5	aluminium hydroxide
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Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Never give anything by mouth to an unconscious person.
Move out of dangerous area.
In all cases of doubt, or when symptoms persist, seek medical attention.
Immediately remove contaminated clothing.
If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position).
First aid personnel should pay attention to their own safety.
- If inhaled : If breathed in, move person into fresh air.
If breathing is irregular or stopped, administer artificial respiration.
If symptoms persist, call a physician.
- In case of skin contact : Do NOT use solvents or thinners.
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
If symptoms persist, call a physician.
- In case of eye contact : In case of eye contact, remove contact lens and

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	rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
	If symptoms persist, call a physician.
If swallowed	: Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.
	Rinse mouth.
	Do NOT induce vomiting.
	If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
	Dusts may cause mechanical irritation to eyes.
Notes to physician	: Treat symptomatically.
	No known specific antidote.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Dry powder

Carbon dioxide (CO₂)

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Water spray

Foam

Unsuitable extinguishing : High volume water jet media

Specific hazards during fire fighting : Fire will produce dense black smoke containing hazardous combustion products (see section 10).

Hazardous combustion products : Vapors and/or decomposition products are irritant and/or toxic.

Further information : Notify proper authorities.

Remove product from areas of fire, or otherwise cool sealed containers with water in order to avoid pressure build up due to heat.

Cool containers/tanks with water spray.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Avoid breathing dust.

For non-emergency personnel:

Use personal protective equipment.

Ensure adequate ventilation, especially in confined areas.

Keep away from sources of ignition.

For emergency responders:

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

Avoid contact with skin and eyes.

Use antistatic tools.

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Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.

Do not allow uncontrolled discharge of product into the environment.

Avoid subsoil penetration.

A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities.

Methods and materials for : Ensure adequate ventilation.
containment and cleaning
up

Avoid dust formation.

Contain and collect mechanically and dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on protection : Ground conductive equipment properly to prevent
against fire and explosion electrostatic discharge.

Avoid all sources of ignition: heat, sparks, open flame.

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The relevant fire protection measures should be noted.

Avoid dust formation.

Advice on safe handling : Provide good ventilation of working area (local exhaust ventilation if necessary).

Do not return residues to the storage containers.

Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws.

The workplace should be equipped with an emergency shower and eye-rinsing facility.

Avoid contact with the skin, eyes and clothing.

Handle in accordance with good industrial hygiene and safety practice.

Protect from moisture.

Avoid creating dust.

Proper ventilation and respiratory protection is required when sanding, flame cutting, welding or brazing coated surfaces.

WARNING: Empty containers may still contain hazardous residue.

Do not puncture, drop, or slide containers.

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Further information on storage conditions : Keep away from heat.
Avoid direct sunlight.
Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel.
Always keep in containers of same material as the original one.
Observe label precautions.
Protect from moisture.
Keep in a dry, cool and well-ventilated place.

Materials to avoid : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Recommended storage temperature : 50 - 104 °F / 10 - 40 °C

Storage period : 60 Months

Further information on storage stability : Consult local fire marshal for storage requirements.

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Packaging material : Suitable material: tinned carbon steel (Tinplate), Carbon steel (Iron), Polypropylene, Polyethylenetherephtalate (PET), Low density polyethylene (LDPE), High density polyethylene (HDPE), Stove-lacquer C222A/C221A, Standard interior paint, Stove-lacquer Vitalure 745, Stove-lacquer Valspar HXR008F red, Stove-lacquer KNS L-5X, Stove-lacquer EHD0022, Stove-lacquer 79/14/3 (Müller/CH), Stove-lacquer R 78433, Stove-lacquer RDL 50, glass

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
diiron trioxide	1309-37-1	TWA (Respirable particulate matter)	5 mg/m ³	ACGIH
		TWA (dust and fume)	5 mg/m ³ (Iron)	NIOSH REL
		TWA (Fumes)	10 mg/m ³	OSHA Z-1
		TWA (total dust)	15 mg/m ³	OSHA Z-1
		TWA (respirable)	5 mg/m ³	OSHA Z-1

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		fraction)		
aluminium hydroxide	21645-51-2	TWA (Respirable particulate matter)	1 mg/m3 (Aluminum)	ACGIH

Engineering measures : Ensure adequate ventilation.

General mechanical ventilation should comply with OSHA 1910.94.

Personal protective equipment

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Filter type : Particulates type

Hand protection

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. chloroprene rubber (CR) - 0.5 mm coating thickness nitrile rubber (NBR) - 0.4 mm coating thickness butyl rubber gloves - material thickness: 0.5 mm Performance level 6, corresponding to a breakthrough time of >480 min according to EN ISO 374-1 The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties). Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Preventive skin

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Eye protection	: Safety glasses with side-shields conforming to EN166
Skin and body protection	: Chemical resistant protective clothing according to DIN EN 13034 (Type 6)
Protective measures	: Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust.
Hygiene measures	: Remove contaminated clothing immediately and dispose of safely. Wash hands before breaks and at the end of workday. Keep away from food, drink and animal feedingstuffs. Contact lenses should not be worn.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: solid
Color	: brown
Odor	: No data available
Odor Threshold	: No data available

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pH : substance/mixture is non-soluble (in water)

Melting point/freezing point : not determined

Boiling point/boiling range : Study technically not feasible.

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : hardly combustible

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : not determined

Vapor pressure : not determined (122 °F / 50 °C)
not determined (68 °F / 20 °C)
The product is a non-volatile solid.

Relative vapor density : The product is a non-volatile solid.

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Relative density	:	No data available
		No data available
Density	:	0.700 g/cm ³ (68 °F / 20 °C)
Solubility(ies)	:	
Water solubility	:	not determined
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	not applicable for mixtures
Autoignition temperature	:	> 392.00 °F / > 200.00 °C
Decomposition temperature	:	No decomposition if stored and handled as prescribed/indicated.
Viscosity	:	
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	not determined (73 °F / 23 °C) not determined (104 °F / 40 °C)
Flow time	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Self-heating substances	:	The substance or mixture is not classified as self heating.

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Heat of combustion : No data available
Metal corrosion rate : Not corrosive to metals.

Particle characteristics
Particle size : No data available

Particle Size Distribution : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : Dust can form an explosive mixture in air.

Conditions to avoid : Avoid direct sunlight.
Heat.
Avoid dust formation.

Incompatible materials : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

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

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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

Skin sensitization

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

Respiratory 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.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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.

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STOT-repeated exposure

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

Aspiration toxicity

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

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not discharge into drains/surface waters/groundwater.

Observe national and local legal requirements.

It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA.

Incinerate or dispose of in a RCRA-licensed facility.

Contaminated packaging : WARNING: Empty containers may still contain hazardous residue.

Dispose of in accordance with national, state and local regulations.

Packaging that is not properly emptied must be disposed of as the unused product.

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SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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US State Regulations

Pennsylvania Right To Know

diiron trioxide 1309-37-1

New Jersey Right To Know

diiron trioxide 1309-37-1

The ingredients of this product are reported in the following inventories:

TSCA : On or in compliance with the active portion of the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

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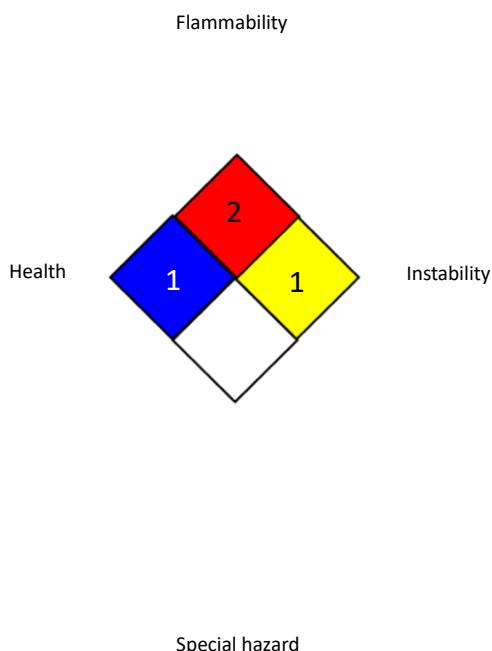
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NFPA 704:



HMIS® IV:

HEALTH	/	1
FLAMMABILITY		2
PHYSICAL HAZARD		1

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "/" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport

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Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

For multi-pack systems observe material safety data sheets of all components.
Restricted to professional users.

Revision Date : 12/18/2025

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.

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