



Material Safety Data Sheet

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SECTION 1 PRODUCT AND COMPANY INFORMATION

Trade Name: HCS Neurotoxicity Assays
Catalogue Number(s): HCS221, HCS222
Chemical Name: Acrylamide in water
Other trade names and synonyms: None
Manufacturer/Distributor: Millipore Corporation (Corporate Headquarters) Millipore S.A.S. (European Headquarters)
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SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Component	EINECS or ELINCS No.	CAS No.	Content (weight percent)	Symbol letters*	R Phrases**
Acrylamide	201-173-7	79-06-1	7 %	T	--
Water	231-791-2	7732-18-5	93 %	--	--

* Symbol letters and categories of danger: **T+** = Very toxic, **T** = Toxic, **C** = Corrosive, **Xn** = Harmful, **Xi** = Irritant, **E** = Explosive, **F+** = Extremely flammable, **F** = Very flammable, **N** = Dangerous for the environment, **O** = Oxidizing.

** The full text of each phrase is listed in Section 16.

SECTION 3 HAZARD IDENTIFICATION / EMERGENCY OVERVIEW

Appearance: Colorless to a slight milky appearance
Classification: Toxic
Adverse human health effects
Contact with Eyes: May cause irritation

Ingestion:	Toxic! May cause systemic poisoning with symptoms paralleling those of inhalation.
Inhalation (Short Term):	May cause drowsiness, tingling sensations, fatigue, weakness, stumbling, slurred speech, and shaking. May cause central and peripheral nervous system damage. Severe intoxications may cause permanent nerve damage. Causes irritation to the respiratory tract. May affect reproductive system and act as a teratogen.
Inhalation (Long Term):	Prolonged or repeated exposure through any route may cause muscular weakness, loss of coordination, skin rashes, excessive sweating of hands and feet, cold hands, peeling of the skin, numbness, abnormal skin or muscle sensations, fatigue, and cause central and peripheral nervous system damage. Suspect cancer hazard. May cause cancer. May affect the reproductive system and act as a teratogen.
Skin Contact:	May cause irritation and redness. Can be absorbed through the skin causing systemic poisoning; symptoms may parallel inhalation.
Target Organs:	Skin, central and peripheral nervous systems, reproductive system
Medical conditions aggravated by exposure:	Persons with pre-existing skin disorders, eye problems or central or peripheral nervous system conditions may be more susceptible to the effects of this substance.
Adverse environmental effects:	When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. This material is not expected to significantly bioaccumulate. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.
Adverse physiochemical effects:	No data available

SECTION 4 FIRST AID MEASURES

Contact with Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
Ingestion:	Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician
Skin Contact:	Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

SECTION 5 FIRE FIGHTING MEASURES

Flash Ignition Temperature:	No data available
Autoignition Temperature (ASTM D1929):	No data available
Suitable extinguishing media:	Water spray, dry chemical, alcohol foam, or carbon dioxide.

Unsuitable extinguishing media: None known

Special protective equipment for firefighters: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Special exposure hazards: Material may be absorbed through the skin and eyes.

SECTION 6 ACCIDENTAL RELEASE

Personal precautions: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Small spills: Wear appropriate personal protective equipment as specified in Section 8. Pick up spill for recovery or disposal and place in a closed container.

Large spills: US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

Environmental precautions: Do not allow the material to enter water ways or sewer systems.

Clean up measures: Clean up the material using a sponge or other absorbent. Place the material and absorbents in a closed container

SECTION 7 HANDLING AND STORAGE

Handling: Wear special protective equipment (Sec. 8) Wash hands after use. Avoid cross-contamination of street clothes. Wash hands before eating and do not eat, drink, or smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues; observe all warnings and precautions listed for the product.

Storage: Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Store separately from reactive or combustible materials, and out of direct sunlight. Isolate from oxidizing materials and peroxides. Store away from acids and alkalies.

SECTION 8 EXPOSURE CONTROL AND PERSONAL PROTECTION

	Normal Handling Conditions	Emergency Response Conditions
Respiratory protection:	Not required	Self contained breathing apparatus
Ventilation:	General room ventilation	Approach spills from upwind
Eye protection:	Safety glasses	Face shield
Skin protection:	Nitrile gloves and laboratory coat	Chemically resistant jacket, pants, gloves, boots and head covering

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to a slight milky appearance

Odor:	Odorless
Odor Threshold:	No data available
pH:	No data available
Melting Point:	Not applicable
Boiling Point:	212° F
Flash Ignition Point:	No data available
Explosive Properties:	Not expected to be explosive under normal conditions
Oxidizing Properties:	Not applicable
Vapor pressure, 20 °C:	No data available
Solubility:	Miscible in water
Specific Gravity (Water = 1.0):	No data available
Vapor Density, 20 °C:	No data available
Viscosity, centipoise:	No data available
Partition coefficient (n-octanol/water):	No data available

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions
Incompatible With:	Acids, oxidizing agents, and bases. Spontaneously reacts with hydroxyl-, amino-, and sulfhydryl- containing compounds.
Hazardous Decomposition Products:	Burning may produce ammonia, carbon monoxide, carbon dioxide, nitrogen oxides. Hydrogen gas.
Conditions to Avoid:	Heat, shock, UV light, ignition sources, and incompatibles.
Hazardous Polymerization:	Acrylamide readily polymerizes on exposure to heat, U.V. light, oxidizers, or peroxides.

SECTION 11 TOXICOLOGICAL INFORMATION

Carcinogenicity:	IARC Category 2A
Toxicology Data:	For Acrylamide: oral rat LD50: 124 mg/kg; skin rabbit LD50: 1680 uL/kg; investigated as a tumorigen, mutagen, reproductive effector.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:	This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l.
Environmental Fate:	When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. This material is not expected to significantly bioaccumulate. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

SECTION 13 DISPOSAL INFORMATION

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 TRANSPORTATION INFORMATION

Not regulated

SECTION 15 REGULATORY INFORMATION

United States This product contains a component that is regulated by the Toxic Substances Control Act (TSCA)

SECTION 16 ADDITIONAL INFORMATION

Abbreviations Used	
ACGIH	American Conference of Government Industrial Hygienists
ADR	European agreement on the international carriage of dangerous goods on road
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EPA	United States Environmental Protection Agency
IARC	International Agency for Research in Cancer.
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	Regulations regarding the transportation of dangerous goods on ocean-going vessels issued by the International Maritime Organization.
LC ₅₀	Lethal Concentration 50% is the concentration of a chemical which kills 50% of a sample population
LD ₅₀	Lethal Dose 50% is the dose of a chemical which kills 50% of a sample population.
LDLo	Lowest observed lethal dose
MSFU	Manufacture, Formulation, Supply and Use (Section 13)
NIOSH	National Institute of Occupational Safety and Health (US)
NTP	National Toxicology Program (US)
OSHA	United States Occupational Safety and Health Administration
RID	International regulations concerning the international carriage of dangerous goods by rail.
RTECS	Registry of Toxic Effects of Chemical Substances (US)
WHMIS	Workplace Hazardous Materials Information System (Canada)

This safety data sheet has been prepared to comply with the requirements of European Union Directive 2001/58/EC and ANSI Z400.1-1998.

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