

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

HII-124B INTENSIFIER

Revision Date: 21-Sep-2015

Revision Number: 19

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product Name HII-124B INTENSIFIER
Internal ID Code HM000854

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use	Intensifier
Sector of use	SU2 - Mining, (including offshore industries)
Product category	PC20 - Products such as pH-regulators, flocculants, precipitants, neutralization agents, other unspecific
Process categories	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises

1.3. Details of the supplier of the safety data sheet

Halliburton Energy Services
Halliburton House, Howemoss Place
Kirkhill Industrial Estate
Dyce
Aberdeen, AB21 0GN
United Kingdom

www.halliburton.com

For further information, please contact

E-Mail address: fdunexchem@halliburton.com

1.4. Emergency telephone number

+44 8 08 189 0979 / 1-760-476-3961

Emergency telephone - §45 - (EC)1272/2008	
Europe	112
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)
Cyprus	+210 7793777
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO):+ 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Romania	+40 21 318 36 06
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	NHS Direct (UK): +44 0845 46 47

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Skin Corrosion / irritation	Category 2 - H315
Specific Target Organ Toxicity - (Repeated Exposure)	Category 1 - H372

2.2. Label Elements**Hazard Pictograms****Signal Word****Danger****Hazard Statements**

H315 - Causes skin irritation

H372 - Causes damage to organs through prolonged or repeated exposure if swallowed

Precautionary Statements - EU (§28, 1272/2008)

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/eye protection/face protection

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

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P314 - Get medical attention/advice if you feel unwell

Contains**Substances**

Potassium iodide

CAS Number

7681-11-0

2.3. Other Hazards

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on Ingredients**3.1. Substances**

Substance

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH No.
Potassium iodide	231-659-4	7681-11-0	60 - 100%	Skin Irrit. 2 (H315) STOT RE 1 (H372)	No data available

For the full text of the H-phrases mentioned in this Section, see Section 16**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation**

If inhaled, move victim to fresh air and seek medical attention.

Eyes

In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Skin

In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

Ingestion

Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

4.2. Most Important symptoms and effects, both acute and delayed

Causes skin irritation. Prolonged or repeated exposure may cause damage to organs.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

SECTION 5: Firefighting Measures**5.1. Extinguishing media****Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture**Special Exposure Hazards**

Decomposition in fire may produce harmful gases.

5.3. Advice for firefighters**Special Protective Equipment for Fire-Fighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment. Avoid creating and breathing dust. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

Scoop up and remove.

6.4. Reference to other sections

See Section 8 and 13 for additional information.

SECTION 7: Handling and Storage**7.1. Precautions for Safe Handling**

Avoid contact with eyes, skin, or clothing. Avoid creating or inhaling dust. Ensure adequate ventilation. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry location. Product has a shelf life of 24 months.

7.3. Specific End Use(s)

Exposure Scenario No information available

Other Guidelines No information available

SECTION 8: Exposure Controls/Personal Protection**8.1. Control parameters****Exposure Limits**

Substances	CAS Number	EU	UK	Netherlands	France
Potassium iodide	7681-11-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Germany	Spain	Portugal	Finland
Potassium iodide	7681-11-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Potassium iodide	7681-11-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Potassium iodide	7681-11-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Potassium iodide	7681-11-0	Not applicable	Not applicable	Not applicable	Not applicable

Derived No Effect Level (DNEL) No information available.
Worker

General Population

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Use in a well ventilated area.

Personal protective equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

- Respiratory Protection** HEPA Respirator.
- Hand Protection** Chemical-resistant protective gloves (EN 374) Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Nitrile gloves. (>= 0.4 mm thickness)
 This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.
- Skin Protection** Normal work coveralls.
- Eye Protection** Dust proof goggles.
- Other Precautions** None known.

Environmental Exposure Controls Do not allow material to contaminate ground water system

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Solid **Color:** White
Odor: Odorless **Odor Threshold:** No information available

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
pH:	8
Freezing Point/Range	No data available
Melting Point/Range	No data available
Boiling Point/Range	1420 °C / 2588 °F
Flash Point	No data available
Flammability (solid, gas)	No data available
upper flammability limit	No data available
lower flammability limit	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	3.1
Water Solubility	Soluble in water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	0.04
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

Molecular Weight 166 g/mol

VOC Content (%)

No data available

SECTION 10: Stability and Reactivity

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical Stability

Stable

10.3. Possibility of Hazardous Reactions

Will Not Occur

10.4. Conditions to Avoid

None anticipated

10.5. Incompatible Materials

Diazonium salts, diisopropyl peroxydicarbonate, oxidants, bromine, chlorine, trifluorides, fluorine perchlorate.

10.6. Hazardous Decomposition Products

Iodine. Oxides of iodine.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects**Acute Toxicity****Inhalation**

May cause mild respiratory irritation.

Eye Contact

May cause mild eye irritation.

Skin Contact

Causes skin irritation.

Ingestion

Irritation of the mouth, throat, and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity

Prolonged or repeated exposure may lead to iodism. Symptoms include skin rash, running nose, headache and irritation of mucous membranes. Weakness, anemia, loss of weight and general depression may also occur. Prolonged or repeated exposure may cause damage to the thyroid gland.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium iodide	7681-11-0	2779 mg/kg (Rat)	No data available	No data available

Substances	CAS Number	Skin corrosion/irritation
Potassium iodide	7681-11-0	Causes moderate skin irritation. (Rabbit) (similar substances)

Substances	CAS Number	Eye damage/irritation
Potassium iodide	7681-11-0	No data of sufficient quality are available.

Substances	CAS Number	Skin Sensitization
Potassium iodide	7681-11-0	Not regarded as a sensitizer.

Substances	CAS Number	Respiratory Sensitization
Potassium iodide	7681-11-0	No information available

Substances	CAS Number	Mutagenic Effects
Potassium iodide	7681-11-0	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Potassium iodide	7681-11-0	Did not show carcinogenic effects in animal experiments

Substances	CAS Number	Reproductive toxicity
Potassium iodide	7681-11-0	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS	STOT - single exposure
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	Number	
Potassium iodide	7681-11-0	No information available
Substances	CAS Number	STOT - repeated exposure
Potassium iodide	7681-11-0	Causes damage to organs through prolonged or repeated exposure if swallowed: (Thyroid)
Substances	CAS Number	Aspiration hazard
Potassium iodide	7681-11-0	Not applicable

SECTION 12: Ecological Information

12.1. Toxicity Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Potassium iodide	7681-11-0	MIC100 (10d) 356.8 mg/L (Dunaliella salina) TT (7d) 2370 mg/L (biomass) (Scenedesmus quadricauda) (Similar substance)	LC50 (96h) 896 mg/L (Oncorhynchus mykiss) LC50 (96h) 3780 mg/L (Oncorhynchus mykiss) (similar substance) LC100 (22d) 166,002.8 mg/L (Oncorhynchus mykiss)	MIC100 (24h) 358.3 mg/L (Staphylococcus aureus)	EC50 (48h) 7.5 mg/L (Daphnia magna) LC50 (48h) 575 mg/L (Acartia tonsa) EC50 (10d) 218.8 mg/L (Corophium volutator)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Potassium iodide	7681-11-0	Readily biodegradable (50% @ 15d) (calculated)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Potassium iodide	7681-11-0	0.11

12.4. Mobility in soil

Substances	CAS Number	Mobility
Potassium iodide	7681-11-0	No information available

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Substances	PBT and vPvB assessment
Potassium iodide	Not PBT/vPvB

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Disposal Method Contaminated Packaging

Bury in a licensed landfill according to federal, state, and local regulations.
Follow all applicable national or local regulations. Contaminated packaging may be disposed of by: rendering packaging incapable of containing any substance, or treating packaging to remove residual contents, or treating packaging to make sure the residual contents are no longer hazardous, or by disposing of packaging into commercial waste collection.

SECTION 14: Transport Information

IMDG/IMO

UN Number: Not restricted
 UN Proper Shipping Name: Not restricted
 Transport Hazard Class(es): Not applicable
 Packing Group: Not applicable
 Environmental Hazards: Not applicable

RID

UN Number: Not restricted
 UN Proper Shipping Name: Not restricted
 Transport Hazard Class(es): Not applicable
 Packing Group: Not applicable
 Environmental Hazards: Not applicable

ADR

UN Number: Not restricted
 UN Proper Shipping Name: Not restricted
 Transport Hazard Class(es): Not applicable
 Packing Group: Not applicable
 Environmental Hazards: Not applicable

IATA/ICAO

UN Number: Not restricted
 UN Proper Shipping Name: Not restricted
 Transport Hazard Class(es): Not applicable
 Packing Group: Not applicable
 Environmental Hazards: Not applicable

14.1. UN Number: Not restricted

14.2. UN Proper Shipping Name: Not restricted

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: None

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

SECTION 15: Regulatory Information

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

International Inventories

EINECS Inventory This product, and all its components, complies with EINECS
US TSCA Inventory All components listed on inventory or are exempt.
Canadian DSL Inventory All components listed on inventory or are exempt.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering Classes (WGK) WGK 1: Low hazard to waters.

15.2. Chemical Safety Assessment

No information available

SECTION 16: Other Information

Full text of H-Statements referred to under sections 2 and 3

H315 - Causes skin irritation

H372 - Causes damage to organs through prolonged or repeated exposure if swallowed

Key or legend to abbreviations and acronyms

bw – body weight

CAS – Chemical Abstracts Service

CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures

EC – European Commission

EC10 – Effective Concentration 10%

EC50 – Effective Concentration 50%

EEC – European Economic Community

ErC50 – Effective Concentration growth rate 50%

IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

LC50 – Lethal Concentration 50%

LD50 – Lethal Dose 50%

LL0 – Lethal Loading 0%

LL50 – Lethal Loading 50%

MARPOL – International Convention for the Prevention of Pollution from Ships

mg/kg – milligram/kilogram

mg/L – milligram/liter

NIOSH – National Institute for Occupational Safety and Health

NOEC – No Observed Effect Concentration

NTP – National Toxicology Program

OEL – Occupational Exposure Limit

PBT – Persistent Bioaccumulative and Toxic

PC – Chemical Product category

PEL – Permissible Exposure Limit

ppm – parts per million

PROC – Process category

REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

STEL – Short Term Exposure Limit

SU – Sector of Use category

Key literature references and sources for data

www.ChemADVISOR.com/

OSHA

ECHA C&L

Revision Date: 21-Sep-2015

Revision Note

SDS sections updated: 1

This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010

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End of Safety Data Sheet